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A CRITICAL ANALYSIS OF STUDENT PERSISTENCE AT THE STATE UNIVERSITY OF IOWA

by

RUSSELL WARRICK TALLMAN, Ph.D.

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CHAPTER I

SCOPE OF STUDY, SOURCE OF DATA, AND METHOD OF ATTACK

The only logical basis for predicting the ultimate academic history of any student body is the actual performance of similar student bodies. If conditions did not change it would be possible to secure this information from a study of one selected group. That is, the freshman class at the University of Iowa for the year 1900 might be studied in minute detail to determine what actually happened in the way of persistence. Once obtained, these data could be used to predict what would happen for the class of 1925 or for any other year. Such a procedure is impossible because of several reasons, chief among which are (1) the utter impossibility of retracing the academic history of anything like the majority of the members of the original freshman class of 1900, (2) the great change which has taken place in the attitude toward higher education since that time, and (3) changing economic conditions which doubtless affect school attendance.

To take for this study a class recent enough to overcome these objections means one so recent as to preclude the possibility of a complete record at this time, or one in which the World War caused an unusual situation as regards college attendance. Further, the plan of tracing the academic history of any freshman class does not take into account those students doing the first year or more of their work in other institutions. This latter defect might be remedied by taking as the starting point the complete academic histories of all the graduates from the university for any one year. These data would show the persistence in years for the entire graduating group, but again the story would not be complete, as any study based on those graduating omits all those students who for any reason dropped out before graduation.

From the foregoing it is seen that it is impossible to make a direct study of any particular group and derive an adequate basis for predicting the ultimate college attendance of any freshman class. The logical procedure, and the one adopted in this study, is to work from both angles, first carefully recording the academic history of the freshman class of a given year, and then retracing the record of a graduating class of a given year. On the basis of the information gained in both these methods it is possible to supply desirable data which are not gained directly in either.

From the study of the graduating class the percentage of the total number of graduates who have dropped out for a time and the length of time they were out of school can be determined. It is thus possible to determine the percentage of the graduating class which was graduated four, five, six, or more years after they first entered.

From the recorded history of the freshman class it is possible to determine what percentage of the freshman class is graduated, or completes four years of collegiate work within a given length of time. If we assume that approximately the same percentages will obtain for one group as another we can then arrive at the percentages of any freshman class which will eventually complete a four-year course or its equivalent.

If, for example, we find that in any freshman class 40 per cent of its membership has been graduated by the end of the fourth year after matriculation, and that for a graduating class we find that 50 per cent of all who eventually are graduated are so by the end of the fourth year, we can say that the 40 per cent of the freshman class who are graduated by the end of the fourth year constitute 50 per cent of their number who will eventually be graduated. In like manner the percentage of this freshman class which will be graduated each succeeding year can be supplied.

To take as a starting point for the freshman study a year far enough back to allow ample time in which to complete the attendance record before the war would hardly yield the best picture of present day attendance because of changing economic conditions and the changing attitude toward higher education. In view of these restrictions the academic year 1920-21 was chosen as the starting point for this study.

The entire academic history of the freshman class of 1920-21 of the University of Iowa was carefully recorded. Letters were sent to all who had left this university before graduation, and the academic history of a good percentage of these absentees was completed as well as the history of all those who remained on the campus.

For the second part of the study, the academic histories of all those who were graduated from the University of Iowa, except those receiving the degrees M.A., M.S., Ph.D., and J.D., during the calendar year 1924 were retraced and tabulated. These tabulations, Table 11, page 39, show the persistence of these graduates in terms of years elapsed between high school[1] and college graduation, and, with those of the freshman group, form the basis for predicting the approximate ultimate attendance of the freshman group, and the interval of time involved.

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[1] The official records of these graduates do not in many cases show the year in which the student first entered college, therefore it was necessary to use another basis for combining the data in the two parts of this study in order to predict the ultimate attendance of the freshman group. The basis chosen was the number of years that had elapsed between high school and college graduation, as these data could be obtained for both groups, the date of high school graduation being known in both cases. See Tables 11 and 21 on pages 39 and 57 for data showing years between high school and college graduation.

CHAPTER II

ACADEMIC HISTORIES AND PREDICTION OF ULTIMATE ATTENDANCE

ACADEMIC HISTORIES OF THOSE STUDENTS WHO WERE GRADUATED IN 1924, AND THE FRESHMAN CLASS OF 1920; WITH A PREDICTION OF THE PERCENTAGE OF THE FRESHMAN CLASS WHO WILL EVENTUALLY COMPLETE FOUR YEARS OF COLLEGE WORK

For the most part, the tables on pages 32 to 61 of the appendix are more meaningful than any interpretation of them that might be made. Table 12 on page 41 shows the detailed record of attendance at the University of Iowa for those students who were graduated from the College of Liberal Arts for the calendar year 1924. The data are shown separately, and also grouped, for both men and women for each of the four convocations. The fifth part of the table is a summary for all those graduated from the College of Liberal Arts for the entire year 1924. In like manner the data for those who were graduated with degrees other[1] than Bachelor of Arts are presented in Table 13 on page 45. Table 14, page 48, is a composite of Tables 12 and 13.

The number of regular university years[2] spent at the University of Iowa ranges from 0 to 8. In addition to these nine main classifications, there are used with them twenty-six different combinations of summer session, correspondence study, and Saturday classes, making in all seventy-five different categories for recording the attendance record.

In addition to recording the data separately for the men and the women for each convocation, this detailed analysis of attendance is shown because of the increasing importance of summer session, correspondence study, and Saturday class work. For both the Liberal Arts groups and those other than Liberal Arts it is seen that the percentage of regular attendance is greatest for those who were graduated in June. However, there is a considerable increment of additional attendance at each of these convocations, the percentage of the total being greatest for the January convocation.

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[1] All other graduates except those receiving the following degrees: M.A., M.S., Ph.D., and J.D.

[2] Year of two semesters, excluding summer sessions, correspondence study, and Saturday classes.

Attendance at colleges other than the University of Iowa by those who were graduated from the University in 1924 is shown in Table 15 on page 48. This table shows the name of the institution attended, the number of the graduates of 1924 who attended each institution, and the number of years attended by each student. If the amount of time were less than one-fourth of a year, or unknown, it was recorded in the (X) column, otherwise under the column headings which indicate the years of attendance, as (½), (1), (1½), (2), (3), and (4).

The data are recorded separately for (1) Bachelor of Arts, Men, (2) Bachelor of Arts, Women, (3) Other than Bachelor of Arts, Men, and (4) Other than Bachelor of Arts, Women. Part (5) is a composite of parts (1) to (4) inclusive. Part (6) is the same as part (5) except that only those colleges are listed which have five or more former students who were graduated from the University of Iowa in 1924.

Due to the fact that the same student often attends more than one institution, the total attendance for the different institutions indicates a greater number of students attending other institutions than is actually the case. There was a total of 321 different students who attended in all 134 different colleges. See Table 16 on page 55.

Table 8 on page 32 shows the ages at the time of graduation from high school, of those who were graduated from the University of Iowa in 1924. These data are presented separately for the men and the women for each convocation, and the composite for the four convocations is also given. The ages range from 15 years to 26 years, the greatest number graduating from high school at the age of 18 years. These data are presented mainly for future reference.

Table 9 on page 34 shows the ages, at the time of graduation, of those who were graduated from the university in 1924. For the Liberal Arts group the ages range from 19 to 52, with the greatest number graduated at 22. For the group Other than Liberal Arts, the greatest number were graduated at 23, the number being slightly greater than that of those graduated at 22. These data are likewise shown in detail. The tabulations themselves give the best picture of the distribution by years for each group.

Owing to the fact that the official records of those who were graduated do not in many cases show the year in which the student first entered college, it was necessary to find some other basis as a means of combining the data gathered on the freshman class of 1920 and those who were graduated in 1924, for the purpose of predicting the approximate percentage of the freshman class eventually to complete four years of college work or its equivalent, and the length of time which would elapse. Fortunately, the records do, as a rule, show the year in which the student was graduated from high school. This seemed to be the best obtainable date for combining the two parts of this study for predictive purposes. Table 10 on page 37 was prepared with this purpose in view. The data are recorded for the men and the women separately under two main classifications, Bachelor of Arts and Other than Bachelor of Arts.

Table 11 is based on Table 10 with the percentages added for each year. The range in years between graduation from high school and the University of Iowa is from 2 to 30 years in the Liberal Arts group, and from 2 to 32 years in the Other than Liberal Arts group. In both the greatest percentage is graduated four years after high school graduation. The percentage falls away rapidly after the sixth year for the Liberal Arts group, and after the seventh year for the Other than Liberal Arts group.

The academic history of the freshman class of 1920 is still in the making. Therefore the great amount of effort involved in isolating all the possible data, which could be gathered directly and indirectly from the official records in the office of the Registrar would not be justified if the history of these students up to the time this study was closed were treated as an end in itself.

As one of the chief aims of this study was to lay the foundation for additional and more specific studies of various phases of the general problem of student personnel, special effort was made to secure a scrupulously accurate academic and personal history of each entering freshman so far as the official records reveal them. It was found in many cases that certain important items, from the above point of view, were not directly available. These data were built up from the known data.

In this study of the freshman group there were two main objectives: (1) to aid in securing the essential data for the prediction of the ultimate college attendance of the freshman group; and (2) to make immediately available all the known data on this group for future reference and additional study. This study has used only those data for this group which are essential to the interpretation of Chapters II and III. However, all the basic data for the freshman group, so far as the official records reveal them, directly or indirectly, have been made immediately available by utilization of the Hollerith card sorting system, and the punched cards containing these data are filed, with a detailed key, in the office of the Registrar. See pages 61 and 62 of the appendix for the list of data which are punched on the Hollerith cards.

Graduates from high schools in thirty states are found in the freshman class of 1920, as is shown in Table 17 on page 55. In addition, there are seven students from foreign countries. Out of a grand total of 1119 cases for which these data were available, 1044, or 93.3 per cent, were graduated from Iowa high schools, and 51, or 6.7 per cent, were graduated from schools in other states or foreign countries.

Table 18 on page 56 shows the dates of high school graduation of the freshman group of 1920. The Liberal Arts men are represented by high school graduates from 1911 to 1920, and the women, from 1904 to 1920. Those graduated from high school in 1920 constitute 65.5 per cent of the men and 65.8 per cent of the women. The years range from 1914 to 1920 for the Applied Science freshmen. Women enter college a longer time after high school graduation than men in the Liberal Arts group. The men in the Applied Science group enter college sooner after high school graduation than the men in the Liberal Arts group.

Table 19 on page 56 shows the years of graduation from the University of Iowa for the freshman group of 1920. Six men and five women in the Liberal Arts group were graduated in 1923, this being 4.8 per cent and 4.1 per cent, respectively, of the total number graduated during 1923, 1924, and 1925. Of the Liberal Arts group, 88.7 per cent of the men and 92.7 per cent of the women were graduated in 1924. None of the Applied Science group was graduated in 1923, but 37, or 94.9 per cent of those graduated by 1925 were graduated in 1924.

Table 20 on page 57 shows the years between high school graduation and college entrance of the freshman group of 1920. Of this class 65.5 per cent of the Liberal Arts men, 65.8 per cent of the Liberal Arts women, and 58.2 per cent of the Applied Science group entered the university immediately. Those entering one year after they were graduated from high school comprise 18.4 per cent of the Liberal Arts men, 15.2 per cent of the Liberal Arts women, and 20.6 per cent of the Applied Science group. The percentages for each succeeding year fell off rapidly for each group.

Table 21 on page 57 shows the years between high school and college graduations. In the Liberal Arts group there are two men, or 1.8 per cent, and one woman, or 0.8 per cent, who were graduated three years from the time they had been graduated from high school. For both the Liberal Arts and Applied Science groups the greatest percentage was graduated four years after high school graduation. It is noticeable, however, that a greater percentage of Liberal Arts men than Liberal Arts women is graduated five years after high school graduation, there being 21.2 per cent of the former and 6.8 per cent of the latter. In the Applied Science group there were 17.9 per cent who were graduated the fifth year after high school graduation. There is not a sufficient number of cases in these groups to show a continuous distribution after about the sixth year. Missing data from the records for a number of the older members of the freshman class of 1920 added to the difficulty of securing all the essential information for this table.

Of the freshman group of 1920, 64 men attended the summer session for one summer, 21 for two summers, 4 for three summers, and 1 for four summers. Four men of this class completed one year of correspondence, and 1 man, one year of Saturday class work. Of the women of the freshman class of 1920, 63 attended the summer session for one summer, 26 for two, 11 for three, and 3 for four summers. Twelve women were enrolled for one year in correspondence study, and 1 for one year of Saturday class work. See Table 12, page 41.

On the basis of those members of the original freshman class of 1920 who were actually graduated from this university four years from the time they were graduated from high school (Table 21, page 57) combined with the total number still in school (Table 23, page 58) at the University of Iowa and those who have been graduated elsewhere, it was found that 33 per cent of the original freshman class of 1920 had completed four years of college work within four years from the time they were graduated from high school.

Table 11 on page 39 shows that 45.7 per cent of the groups that were graduated from the University of Iowa in 1924, were graduated within four years from the time they were graduated from high school. Assuming that these ratios hold constant for the two groups we have the basis for predicting the ultimate percentage of the freshman class who will eventually be graduated. The 33 per cent of the original freshman class of 1920 who had completed four years of college work within four years after high school graduation equals 45.7 per cent of its number who will eventually complete four years or more of college work. Therefore the total number of the original freshman class of 1920 having completed four years of work within four years after high school graduation constitutes 45.7 per cent of their number who will eventually complete four years of work. Then 45.7 per cent of the total number who will eventually be graduated equals 336 students (Table 11, page 39); and 100 per cent equals 735 students, the total number of the original freshman class of 1920 who will eventually be graduated. Seven hundred thirty-five is 72.2 per cent of 1018 (the number of students in the original freshman group). These are the percentages based on the Liberal Arts group of those who were graduated at the University of Iowa in 1924.

Including all the graduates of 1924 who received Bachelor of Arts and Bachelor of Science degrees, there was a total of 593 (182 Science and 411 Arts) who were graduated from four-year courses. Of this number 188 Arts and 67 Science, or a total of 255, were graduated four years after they were graduated from high school. That is, 255 out of a total of 593, or 43 per cent graduated four years after they were graduated from high school. Therefore 43 per cent of those graduating from four-year courses did so within four years after they were graduated from high school. There were 374 out of a total of 1175 Liberal Arts and Applied Science freshmen in the original class of 1920 who were graduated four years after they were graduated from high school. This is 31.8 per cent of their original number. On the assumption that they will be distributed, both with respect to years between high school and college graduation, and choice of college or course of study pursued, as were the above groups of Liberal Arts and Applied Science graduates of 1924, this 31.8 per cent of their original number becomes 43 per cent of their original number who will eventually complete four years of college work. As 43 per cent equals 374, 100 per cent equals 870, the total number to be graduated eventually, or to complete four years of college work. This number, 870, is 74 per cent of the total number, 1175, of the original freshman class who will eventually complete four years of work.

We see in Table 1, Section A, below, that 374 out of 1175 or 31.8 per cent of the freshman class have completed four years of college work at the University of Iowa or elsewhere by 1924. From

TABLE 1

PREDICTION OF ULTIMATE ATTENDANCE OF ORIGINAL FRESHMAN CLASS OF 1920

Section A

Total No. of L.A. and Ap. Sci. Freshmen			1175
Graduated from S.U.I. by 1924	271	or 23.1%	
Still in school (S.U.I.) four or more years	89	or 7.6%	
Graduated elsewhere by 1924	14[2]	or 1.3%	
Total	374[1]	or 31.8%	

Section B

Letters sent to students who had dropped out				634
1. Total number replies		230		
2. Letters returned, addresses unknown		48		
3. Number graduated elsewhere by 1924		8		
4. Total No. who intend to return to college		110		
(a) Intend to return to S.U.I.	43			
(b) Do not intend to return to S.U.I.	17			
(c) Undecided as to college	50			
5. Attending college elsewhere		36[2]	or 3.1%	
6. No. taking correspondence work at S.U.I.		10[2]	or 0.9%	
7. No. taking correspondence work elswhere		66[2]	or 5.6%	
8. No. deceased		6[2]	or 0.6%	

Section C

1. Number[3] of freshman class to complete four years of college work			870
(a) No. graduated from S.U.I.	271		
(b) No. still in school at S.U.I. (four or more years of work)	89		
Total		360	
(c) No. graduated elsewhere		14	
(d) Total number having four or more years of college work by 1924		374	
2. Total number of those eventually to graduate unaccounted for by 1924 (870[1] less 374)			496

3. See Section B, 4 (a), (b) and (c) of this table. On the assumption that half of those undecided (Section B, 4 (c) of this table) will return to the University of Iowa, 62 per cent of total (68 out of 110) who intend to resume college work (62% of 496 or 308) will return to the University of Iowa.

360 (see sub-total of (1) above) and 308 or 668 out of 1175, or 56.9 per cent of the original freshman class will complete four or more years of work at the University of Iowa.

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[1] Number of original group of 1175 having completed four years or more of college work by 1924.

[2] Found by multiplying actual number replying by 1.75. This is a conservative estimate even if we assume that a greater percentage of those attending college replied.

[3] See explanation on page 17.

230 replies to 634 letters sent to those who had dropped out it was found that 8 had been graduated elsewhere than the University of Iowa, and that out of 110 who intend to return to college, 43 are returning to the University of Iowa as compared with 17 who are not planning to return to the University of Iowa. Fifty more are planning to resume their college work but are undecided as to institution.

On the assumption that half of fifty come to the University of Iowa, there will be 62 per cent of this group of 110 returning to Iowa, and 38 per cent going elsewhere. In Section C of Table 1, it is seen that of the total number of the freshman class who will eventually complete four years or more of work, 496 are unaccounted for by 1924. On the assumption that 62 per cent of this number will return to the University of Iowa to complete their collegiate work, we have an additional increment of 308, making a total of 668 out of 1175 (the original freshman class) who will complete their four years or more of college work at the University of Iowa, which is 56.9 per cent of their original number.

CHAPTER III

STATISTICAL TREATMENT AND INTERPRETATION OF DATA FOR THE FRESHMAN CLASS OF 1920

As this study may suggest other studies on specific phases of the general attack on the problem of student personnel at this university[1] it was deemed advisable to include in the appendix of the original study all raw data in ungrouped tabulations to make them immediately available for further study or critical analysis.

The scattergrams[2] showing the grouping, frequencies, and distributions of the individual scores of the different groups have been included in the original study to facilitate analysis of the correlations. The measures of dispersion and central tendency which are shown with the raw data in the original study are, with the exception of the median which is inspectional, computed on grouped data.

TABLE 2

SUMMARY OF DATA BASED ON SCORES MADE BY 1920 LIBERAL ARTS FRESHMEN ON THORNDIKE INTELLIGENCE EXAMINATION FOR HIGH SCHOOL GRADUATES

Men

Year	*No.*	*S.D.*	*P.E.*	*Mean*	*Median*
Fr.	397	15.884	10.714	59.018 ± .538	59 ± .674
Soph.	266	15.306	10.324	60.376 ± .633	60 ± .793
Jr.	164	15.105	10.188	61.921 ± .796	63 ± .997
Sr.	99	13.328	8.989	63.081 ± .904	64 ±1.132
Comp.*	106	13.763	9.283	63.396 ± .902	65 ±1.130

Women

Year	*No.*	*S.D.*	*P.E.*	*Mean*	*Median*
Fr.	372	13.602	9.174	60.699 ± .476	61 ± .596
Soph.	246	13.208	8.909	62.805 ± .568	63 ± .712
Jr.	172	12.658	8.538	63.489 ± .651	64 ± .816
Sr.	116	12.571	8.479	63.405 ± .787	64 ± .987
Comp.	116	12.247	8.261	64.526 ± .767	64 ± .961

Both

Year	*No.*	*S.D.*	*P.E.*	*Mean*	*Median*
Fr.	796	14.848	10.015	59.831 ± .361	60 ± .453
Soph.	512	14.388	9.704	61.543 ± .429	62 ± .538
Jr.	336	13.929	9.395	62.723 ± .513	63 ± .642
Sr.	215	12.926	8.718	63.256 ± .595	64 ± .745
Comp	222	13.005	8.772	63.987 ± .589	64.5± .738

* Those who were graduated.

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[1] See 5, 7, 10, 17, 20, 22, 23, 24, 25, 26, 27, 28, 29 and 33 in Bibliography.

[2] Original study appendix, pages 170-199.

As the Liberal Arts freshmen were given a comprehensive intelligence examination[3] upon their entrance, this group was studied with the view of determining the relationship between intelligence and grades received, elimination, persistence, major subject, and related items.

In the Liberal Arts group there are 769 freshmen (397 men and 372 women); 512 sophomores (266 men and 246 women); 336 juniors (164 men and 172 women); and 222 who were graduated (106 men and 116 women). In the Applied Science group (all men) there are 133 freshmen, 91 sophomores, 71 juniors, 61 seniors, and 38 who were graduated.

In the Liberal Arts group there are 180 cases (83 men and 97 women) who form an identical group for the four years, and in the Applied Science group there are 38 men who form an identical group for the four years. These two groups were given separate statistical treatment. For convenience these two groups will hereafter be designated the "identical" groups, and the two larger groups of the Liberal Arts and Applied Science students the "non-identical" groups.

There is a consistent decrease in the variability from year to year

TABLE 3

SUMMARY OF DATA BASED ON GRADE-POINT AVERAGES MADE BY LIBERAL ARTS FRESHMEN OF 1920

Men

Year	*No.*	*S.D.*	*P.E.*	*Mean*	*Median*
Fr.	397	0.972	0.656	1.436 ± .033	1.5 ± .041
Soph.	266	0.859	0.580	1.640 ± .036	1.7 ± .045
Jr.	164	0.740	0.499	2.115 ± .039	2.1 ± .049
Sr.	99	0.724	0.488	2.273 ± .049	2.2 ± .062
Comp.	106	0.555	0.375	2.097 ± .036	2.1 ± .046

Women

Year	*No.*	*S.D.*	*P.E.*	*Mean*	*Median*
Fr.	372	0.795	0.536	1.863 ± .028	1.9 ± .035
Soph.	246	0.709	0.478	2.054 ± .031	2.1 ± .038
Jr.	172	0.634	0.428	2.367 ± .033	2.4 ± .041
Sr.	116	0.514	0.347	2.524 ± .032	2.45 ± .041
Comp.	116	0.529	0.357	2.356 ± .033	2.2 ± .042

Both

Year	*No.*	*S.D.*	*P.E.*	*Mean*	*Median*
Fr.	769	0.916	0.618	1.642 ± .022	1.8 ± .028
Soph.	512	0.817	0.551	1.839 ± .024	1.9 ± .031
Jr.	336	0.666	0.449	2.244 ± .025	2.3 ± .031
Sr.	215	0.629	0.425	2.403 ± .029	2.4 ± .036
Comp.	222	0.557	0.376	2.232 ± .025	2.2 ± .032

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[3] Thorndike Intelligence Examination for High School Graduates: Practice form A; Part I forms E and F; Part II, form C; Part III, form B (17).

in the scores made by the non-identical Liberal Arts group on the Thorndike Intelligence Examination, this being true for both men and women. Both the mean and the median increase consistently from year to year for the men. In the case of the women there is a rise in the mean and median for the first three years, with a slight decrease in the mean for the senior year, although the mean rises slightly for those who were graduated. When the two groups are combined they show a consistent increase from year to year in both the mean and median. The grade-point averages[4] were secured by converting the letter grades for each semester into grade points, and the sum of the two semesters was used as the grade-point average for the year. Treating the grades in this manner gives a more normal distribution than the use of the letters. For the non-identical Liberal Arts group[5] the variability decreases consistently for the men for the four years, and for those who were graduated. In the case of the women there is consistent decrease for the four years, but a slight increase over the senior year for those who were graduated. When both men and women are treated as one group there is a consistent decrease in the variability for each of the five groups. For both men and women there is a consistent increase in the mean during the four years, with a slight falling off for those who were graduated. The median grade-point average is consistently higher for the women.

The coefficients of correlation between intelligence and grade-point averages for the non-identical Liberal Arts group present very interesting data. For the men the correlation for the freshman year is 0.45, with an increase to 0.48 for the sophomore year, a drop to 0.345 for the junior year and a slight rise to 0.35 in the senior year, the correlation for those who were graduated being 0.57. The correlation for the women for the freshman year is 0.60, which is significantly higher (37) than that for the men. It remains at 0.60 for the sophomore year, drops to 0.48 in the junior year, and rises to 0.57 in the senior year, with a correlation of 0.64 for those who were graduated.

The above data which are taken from Table 4 on page 21 show clearly that some factor is causing a fluctuation in the correlations between intelligence and grade-point averages for both the men and women from year to year. This study has not attempted to determine the cause or causes for this fluctuation, as that is a study in itself. In the interpretation of the correlations it is well to bear in mind that a low correlation may be due to the fact that the students who made low scores on the intelligence examinations worked beyond their relative capacity as compared with the group as a whole, or because the more gifted students failed to work up to their capacity. In other words, a high correlation requires that the students low in ability do inferior work as well as that the students high in ability do superior work. It is possible that both factors are at work in the case of the lower correlations for the junior year.

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[4] The grading system at the University of Iowa embraces four passing grades, A, B, C, and D, and two non-passing grades, Conditioned and Failed. One semester hour of A is weighted at 4 grade-points for the purpose of determining honors; B is weighted at 3, C at 2, D at 1, Conditioned at -1 and Failed at -2.

[5] Tables 40 to 49 on pages 142-151 in the original study.

TABLE 4

COEFFICIENT OF CORRELATION BETWEEN INTELLIGENCE AND GRADE-POINT AVERAGES FOR THE FRESHMEN OF 1920

	Men		Women		Both	
Year	*No.*	*Correlation*	*No.*	*Correlation*	*No.*	*Correlation*
Fr.	397	.453 ± .027	372	.604 ± .022	769	.511 ± .018
Soph.	266	.480 ± .032	246	.598 ± .028	512	.529 ± .022
Jr.	164	.345 ± .046	172	.481 ± .040	336	.409 ± .031
Sr.	99	.353 ± .058	116	.571 ± .042	215	.440 ± .037
Comp.	106	.574 ± .044	116	.638 ± .028	222	.597 ± .029

Table 5 on page 22 shows the intelligence scores and grade-point averages for the group of identical Liberal Arts men and women. A comparison of this table with Tables 2 and 3 on pages 18 and 19 reveal certain facts. First, there is a slightly smaller variability in the identical group than in the non-identical group, both with respect to intelligence and to grade-point averages, when the scores for the identical group are compared with the scores of those who were graduated in the non-identical group. So far as this factor is concerned it is obvious that to compare the identical group (all of whom were graduated) with any other division of the non-identical than those who were graduated would be meaningless. The real purpose of this table is to throw light on the question of reliability of grading, or in the assignment of grades. Although this group remains identical for the four years it does not follow that they are in competition with identically the same group each year. The large increment (12) of students who enter the sophomore, junior, and senior classes from other institutions, and the

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TABLE 5

SUMMARY OF DATA BASED ON INTELLIGENCE SCORES AND GRADE-POINT AVERAGES MADE BY A GROUP OF IDENTICAL LIBERAL ARTS FRESHMEN OF 1920

			Intelligence		
	No.	*S.D.*	*P.E.*	*Mean*	*Median*
Men	83	12.710	8.573	64.277 ± .941	66 ± 1.179
Women	97	12.436	8.388	64.124 ± .852	64 ± 1.067
Both	180	12.563	8.474	64.195 ± .632	65 ± 0.792
			Men		
Year	*No.*	*S.D.*	*P.E.*	*Mean*	*Median*
Fr.	83	0.640	0.432	1.843 ± .047	1.8 ± .059
Soph.	83	0.730	0.493	1.876 ± .054	1.8 ± .068
Jr.	83	0.602	0.406	2.234 ± .045	2.2 ± .056
Sr.	83	0.555	0.375	2.357 ± .041	2.3 ± .052
Comp.	83	0.567	0.382	2.093 ± .042	2.0 ± .053
			Women		
Year	*No.*	*S.D.*	*P.E.*	*Mean*	*Median*
Fr.	97	0.672	0.453	2.097 ± .046	2.0 ± .058
Soph.	97	0.628	0.424	2.199 ± .043	2.2 ± .054
Jr.	97	0.506	0.341	2.428 ± .035	2.4 ± .044
Sr.	97	0.504	0.340	2.567 ± .035	2.5 ± .043
Comp.	97	0.508	0.342	2.329 ± .035	2.2 ± .044
			Both		
Year	*No.*	*S.D.*	*P.E.*	*Mean*	*Median*
Fr.	180	0.700	0.452	1.980 ± .034	1.9 ± .042
Soph.	180	0.696	0.470	2.050 ± .035	2.0 ± .044
Jr.	180	0.561	0.378	2.338 ± .028	2.3 ± .035
Sr.	180	0.539	0.363	2.470 ± .027	2.4 ± .034
Comp.	180	0.548	0.369	2.220 ± .028	2.1 ± .035

placing of juniors and seniors in classes which are also open to graduate students changes the relative basis of competition materially. The isolation of these factors must be left for a future study. These data do show, however, that a group of identical students receives higher grades from year to year measured on a grade-point basis, than does a group of non-identical students. It follows, then, that the consistent increase in the grade-point averages for the four years is not due entirely to the higher mean intelligence of the group but is in part due to the fact that upperclassmen receive higher grades than freshmen and sophomores, because there are other factors than intelligence operating to bring up the grade-point averages. While this study shows clearly that such factors are operating, it has not attempted to isolate them. For the identical group (page 23) the average intercorrelation of the grade-point averages, one year against another, was found to be 0.68. By means of the Spearman-Brown formula (13) the reliability of grade-points for the entire four years was established as about 0.89 (21).

This shows a fair amount of consistency over the four-year period; and the grade-points of one year furnish a better measure of prediction for the performance of subsequent years than do the intelligence tests. The development of the possibilities suggested by these correlations involves a specific study in itself.

TABLE 6

COEFFICIENT OF CORRELATION BETWEEN INTELLIGENCE AND GRADE-POINT AVERAGES FOR A GROUP OF IDENTICAL LIBERAL ARTS FRESHMEN OF 1920

	Men		Women		Both	
Year	*No.*	*Correlation*	*No.*	*Correlation*	*No.*	*Correlation*
Fr.	83	.568 ± .050	97	.607 ± .043	180	.577 ± .033
Soph.	83	.561 ± .051	97	.573 ± .046	180	.549 ± .035
Jr.	83	.504 ± .044	97	.476 ± .053	180	.480 ± .039
Sr.	83	.513 ± .050	97	.539 ± .049	180	.515 ± .037
Comp	83	.602 ± .047	97	.618 ± .042	180	.594 ± .033

TABLE 7

INTERCORRELATION OF GRADE-POINT AVERAGES ONE YEAR AGAINST ANOTHER

Year	*Fr.*	*Soph.*	*Jr.*	*Sr.*	*Comp.*
Fr.	1.000	.715 ± .025	.665 ± .028	.529 ± .036	.853 ± .014
Soph.		1.000	.646 ± .029	.723 ± .024	.883 ± .011
Jr.			1.000	.777 ± .020	.879 ± .011
Sr.				1.000	.880 ± .011
Comp.					1.000

For the identical group there is a consistent decrease in the correlation between intelligence and grade-point averages for the first three regular university years. The greatest decrease is between the sophomore and junior years, this being more marked in the case of women. There is a slight rise in the correlation for the senior year, but it remains less than that for the freshman and sophomore years. It may be due to the fact that there is an accumulation of acceleration for the bright students and retardation for the slow ones from year to year, because of the influence of one year's work upon another.

The distribution of intelligence scores according to major subject is shown in Table 24 on pages 59 and 60; and a summary of the table is shown on page 35 of the original study. These data are not here presented because of the limited number of cases in each group. If comparable data were gathered for a period of years some very important facts might be established.

Table 22 on page 57 of the appendix shows the intelligence scores and grade-point averages for each year for the Liberal Arts men and women who were graduated three calendar years after they entered. The mean intelligence score for the men is 64.3 which is practically the same as that of the men in Liberal Arts identical group. The mean intelligence score for the three-year women graduates is 68.2 whereas the mean intelligence score for the women in the Liberal Arts identical group is 64.2. In the three-year group the grade-point averages are higher and the means are more uniform from year to year than in the Liberal Arts identical group.

There were 133 Applied Science freshmen, 91 sophomores, 71 juniors, 61 seniors, and 38 who were graduated during the first four years under consideration. Intelligence scores for these students are not available but their grade-point averages are shown in Tables 54 to 57 on pages 164-167 of the original study.

In the non-identical group the mean grade-point average is more uniform from year to year than is the case of the non-identical Liberal Arts group. The identical Applied Science group (Table 58, page 168 of the original study) does not show the increase in the grade-point averages from year to year, as is the case in the identical Liberal Arts group. In the Liberal Arts group the highest mean grade-point average falls in the senior year, whereas for the Applied Science group it falls in the freshman year. As should be expected, in both Liberal Arts and Applied Science identical groups the mean grade-point averages from year to year are higher than for the non-identical groups.

Table 23 on page 58 shows the distribution of the intelligence scores for those students in the freshman group of 1920 still in school at the University of Iowa in 1924-25. Because of the rather limited number of cases in these groups, no great amount of interpretation should be attempted. However, these data are important, and if gathered for a number of years should become increasingly valuable. Even with this small number of cases a special study might reveal important tendencies. If, for instance, all the group who entered Medicine were followed up as individual case studies until sufficient time had elapsed to allow for the completion of the medical course, they should show which of these students survived in the medical college. There are 21 cases in this group with a range in intelligence scores from 91 to 29, the mean being 64.8, which is essentially that of the Liberal Arts identical group.

In Table 28 on page 129 of the original study are shown the intelligence scores of some of the men and women who dropped out of the freshman Liberal Arts group. The scores are grouped according to the intention to resume college work. For both the men and women who do not intend to resume their college work the mean intelligence score is practically the same as that for the men and women, respectively, in the non-identical Liberal Arts freshman group.

The mean for both the men and women who intend to return to the University of Iowa is slightly less than that of the non-identical Liberal Arts freshman groups. For the men who intend to resume their college work elsewhere, the mean intelligence score is comparable with the score of the men who were graduated from the Liberal Arts non-identical group, whereas the mean score for the women who intend to resume their work elsewhere is seven points lower than the score for the Liberal Arts non-identical women who were graduated. For the former students who are undecided as to where they will resume their college work the mean intelligence score of the men is 66.6, as compared with 63.4 for the men who were graduated from the Liberal Arts non-identical group. The mean intelligence score for the women in this group is 55.0, whereas the mean score for the women of the Liberal Arts non-identical group who were graduated is 64.5. The men who intend to resume their college work but are undecided as to where they will attend are clearly a superior group.

Table 21 on page 118 of the original study shows the intelligence scores for those men and women of the freshman class of 1920 who remained in the university less than one semester. The scores for both men and women in this group are slightly less variable than those for men and women, respectively, in the non-identical freshman Liberal Arts group. The median and mean are appreciably lower for both men and women who remained less than one semester than is the case for the non-identical group.

Table 22 on page 119 of the original study shows the intelligence scores for those students who left this university and entered elsewhere. Both the men and women in this group are more variable as to scores than those students who remained less than one semester. The mean scores are practically the same for the two groups.

Table 24, pages 59 and 60, shows the intelligence scores according to the reasons given for dropping out. In the case of both men and women the greatest number drop out because of financial reasons. The mean score of the men in this group is slightly higher than that of the sophomore men in the non-identical Liberal Arts group, and the mean score for the women is slightly higher than that of the freshman women in the non-identical Liberal Arts group. There were 30 men and 26 women who gave financial difficulties as the reason for dropping out. Inspection of the scores shows that as many students with high scores dropped out for financial reasons as those with low scores. An intensive study of those 56 cases is needed to determine what part intelligence, as such, plays in their elimination. For one thing, the amount of outside work should be known if the significance of the intelligence factor in university success or failure is to be known. There is at present no record of those students who work regularly while attending college.

The next largest group is that of the women who gave matrimony as the reason for discontinuing their college work. The mean score of this group of 15 cases falls between that of the sophomore and junior non-identical Liberal Arts women.

Table 29 on pages 130 and 131 of the original study shows the intelligence scores and present occupations of those who dropped out. The classification of occupations is the same as that used in the office of the Registrar. The number of cases and the mean intelligence score for each group is recorded. Further analysis of these groups is not attempted in this study, but these data are included to make them immediately available for future reference and further study.

In considering the effect of intelligence and scholastic attainment upon persistence in the university the question naturally arises as to what type of student, as compared with other colleges, the University of Iowa enrolls. As a result of the Iowa High School Mental-Educational Survey[6] inaugurated at the University of Iowa in the spring of 1923, there will soon be sufficient data to yield a definite answer to the above question. With the coöperation of Dean C. E. Seashore and Professor G. M. Ruch, and officials of the coöperating high schools, the writer was enabled to secure follow-up data on approximately 2650 high school graduates who had been previously tested in the Mental-Educational Survey. Of these 2650 students, 950 had attended college and 1700 had not. As the scores which these students made in the survey were recorded separately for the three tests, it was possible, after ascertaining the colleges attended by the individuals of the group during the past two years, to find the mean score for each college for each of the three tests. The tabulations of the raw scores for each school are on file in the office of the Registrar, and in Table 59 on page 169 of the original study is a tabulation of the number of cases and the mean score for each college for each of the three tests for the years 1923 and 1924. The scores for the University of Iowa are shown as such, but the identity of the others is not revealed. All but one of these colleges are in Iowa. No great amount of interpretation is attempted in connection with this study, as the Mental-Educational Survey is a continuing study and more reliable conclusions can be drawn after the cases for more years have been included. There are now, however, sufficient cases to substantiate certain conclusions.

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[6] Tests used: The Ruch High School Content Examination, Form A; The Iowa Comprehension Tests (Seashore); The Thorndike Intelligence Examination for High School Graduates, Part I.

On the basis of approximately 110 students who attended the University of Iowa, it is seen that the university group ranks high in every test for each year. Considering "Other Colleges" (those having less than ten students) as one group, we have in all 14 colleges. On this basis the university ranks as follows: High School Content (1923) second, (1924) fifth; Iowa Comprehension (1923) fourth, (1924) second, (tied with three others); Thorndike Intelligence (1923) second, (1924) third. In every case the University has a higher mean score than the combined scores for all other colleges. This is true of but one other college in this study. The most significant difference is between the non-college group and those who did attend college, the scores for the former being consistently lower. This difference between the scores for the non-attendance group and the university group seems to indicate that the University of Iowa is enrolling a more selected group of students than the early part of the survey (20) indicated.

2. Bachelor of Arts: Women continued

Name of Institution	No.	Number of Years Attendance						
		X	½	1	1½	2	3	4
Hall-Moody School	1	0	0	0	0	0	0	1
Harris Teachers	1	1	0	0	0	0	0	0
Harvard	1	0	1	0	0	0	0	0
Illinois State Normal U.	1	0	0	1	0	0	0	0
Iowa State College	6	2	0	3	0	1	0	0
Iowa State Teachers College	26	9	5	7	0	2	2	1
Iowa Wesleyan	5	2	0	2	0	1	0	0
Irish Business	1	1	0	0	0	0	0	0
Kansas State Normal	1	1	0	0	0	0	0	0
Madison State Normal	1	0	0	0	0	0	0	1
Mason City Junior	3	0	0	2	0	1	0	0
Missouri State Coll. for Women	1	0	0	0	0	1	0	0
Monticello	2	0	0	1	0	1	0	0
Morningside	8	0	0	5	0	2	1	0
Mt. St. Joseph	7	0	0	5	0	2	0	0
National Park Sem.	2	0	0	2	0	0	0	0
New England Conservatory of Music	1	0	0	1	0	0	0	0
Northwestern U.	5	0	2	0	0	2	1	0
Oklahoma College for Women	1	0	0	1	0	0	0	0
Parsons	3	0	0	1	0	1	1	0
Peabody	1	0	1	0	0	0	0	0
Pratt Institute	1	0	0	1	0	0	0	0
Randolph Macon	1	0	0	1	0	0	0	0
Rockford	4	0	1	1	0	2	0	0
Rosary	1	0	0	1	0	0	0	0
St. Benedict (Minn.)	1	0	0	0	0	1	0	0
St. Mary's (Notre Dame)	1	1	0	0	0	0	0	0
St. Olaf	1	0	0	0	0	1	0	0
San Alfonso	1	0	0	1	0	0	0	0
Simpson	3	0	0	1	0	2	0	0
South Dakota State	1	1	0	0	0	0	0	0
Southern Sem. (Va.)	1	0	0	1	0	0	0	0
Trinity (Washington, D. C.)	1	0	0	1	0	0	0	0
U. of California	1	1	0	0	0	0	0	0
U. of Chicago	2	1	1	0	0	0	0	0
U. of Colorado	1	1	0	0	0	0	0	0
U. of Denver	1	0	0	1	0	0	0	0
U. of Illinois	1	0	1	0	0	0	0	0
U. of Minnesota	5	2	0	3	0	0	0	0
U. of Montana	1	0	0	0	0	0	1	0
U. of Nebraska	1	0	0	0	0	1	0	0
U. of Oklahoma	1	0	0	0	0	1	0	0
U. of South Dakota	2	0	0	1	0	1	0	0
U. of Washington	2	1	0	1	0	0	0	0
U. of Wisconsin	4	1	0	1	0	1	1	0
Upper Iowa U.	5	0	2	1	0	2	0	0
Valder College	1	1	0	0	0	0	0	0
Ward-Belmont	3	0	0	2	0	1	0	0
Waterloo Business	1	1	0	0	0	0	0	0
Wellesley	1	0	0	1	0	0	0	0
West Texas St. Normal	1	0	0	0	0	1	0	0
Western Ill. State Teachers	1	1	0	0	0	0	0	0

3. Other Than Bachelor of Arts: Men

Name of Institution	No.	Number of Years Attendance X	½	1	1½	2	3	4
Augustana	2	0	1	0	0	0	1	0
Bryant & Stratton Business (Chicago)	1	1	0	0	0	0	0	0
Boston U.	1	0	1	0	0	0	0	0
Bradley Poly. Inst.	1	0	1	0	0	0	0	0
Buena Vista	1	0	0	1	0	0	0	0
California Inst. of Technology	1	0	0	1	0	0	0	0
Carthage	2	1	0	1	0	0	0	0
Central Holiness U.	1	0	0	1	0	0	0	0
Clark U.	1	0	0	0	0	0	1	0
Coe	9	4	1	3	0	0	1	0
Coll. of Emporia	1	0	0	0	1	0	0	0
Coll. of St. Thomas	1	1	0	0	0	0	0	0
Columbia (Dubuque)	1	0	0	1	0	0	0	0
Cornell	5	1	1	1	0	1	1	0
Des Moines U.	1	0	1	0	0	0	0	0
Drake U.	4	0	1	2	1	0	0	0
Dubuque College	2	0	1	0	0	1	0	0
Earlham	1	0	0	0	0	0	0	1
Ellsworth	1	0	1	0	0	0	0	0
Eureka	1	0	0	0	0	1	0	0
Foreign School (?)	1	0	0	0	0	1	0	0
Grinnell	12	0	2	1	1	6	2	0
Highland Park	1	0	0	0	0	1	0	0
Illinois State Normal U.	1	0	1	0	0	0	0	0
International Y.M.C.A.	1	0	0	1	0	0	0	0
Iowa State College	12	1	3	2	1	4	0	1
Iowa State T. C.	6	1	0	1	0	2	0	2
Iowa Wesleyan	2	0	0	1	0	1	0	0
Johnson Bible Academy	1	0	0	0	0	1	0	0
Knox	1	0	0	1	0	0	0	0
McMinnville	1	0	0	0	0	0	1	0
Morningside	4	0	1	1	0	0	2	0
Northwestern U.	2	0	1	1	0	0	0	0
Oberlin	1	0	0	0	0	0	0	1
Parsons	5	2	0	2	0	0	1	0
Simpson	3	0	0	0	0	2	0	1
Tillotson	1	0	0	0	0	0	0	1
Trinity (Sioux City)	3	0	2	1	0	0	0	0
Trinity (Washington, D. C.)	1	0	0	1	0	0	0	0
U.S.A. Service	4	1	3	0	0	0	0	0
U.S. Military Academy	1	0	0	0	1	0	0	0
U.S. Naval Academy	1	1	0	0	0	0	0	0
U. of Chicago	6	1	0	3	1	1	0	0
U. of Colorado	1	1	0	0	0	0	0	0
U. of Illinois	2	1	0	1	0	0	0	0
U. of Kansas	1	0	1	0	0	0	0	0
U. of Michigan	5	1	2	1	1	0	0	0
U. of Minnesota	2	1	0	0	0	1	0	0
U. of Missouri	1	0	0	0	0	0	0	1
U. of Nebraska	2	0	1	1	0	0	0	0
U. of Oregon	1	0	0	1	0	0	0	0
U. of Southern California	2	0	0	1	0	1	0	0
U. of Vermont	1	1	0	0	0	0	0	0
U. of Wisconsin	1	0	1	0	0	0	0	0
Upper Iowa U.	1	0	0	0	0	0	1	0
Washburn	1	0	0	0	0	0	1	0
Western Normal	1	0	0	0	0	1	0	0
Yankton	1	0	0	0	0	1	0	0

CHAPTER IV

SUMMARY AND CONCLUSIONS

1. This study aims to do two things: (1) to make available for immediate use a considerable amount of data concerning what actually happens in a large student body in the way of persistence; and (2) to make the necessary data immediately available for more specific and detailed analyses. *It is primarily a study of what actually happened at the University of Iowa over a period of years rather than a study of why certain things happened.*

2. All the relevant data on the groups studied in so far as the official records of the student body reveal them have been analyzed. While these data throw considerable light on the entire problem of student persistence, they raise more questions than they answer and uncover more problems than they solve.

3. A predictive basis has been formulated to aid in ascertaining the ultimate percentage of any entering freshman class to complete eventually four years or more of college work, and the relative percentage to complete their work at this university.

4. It is impossible to make a direct study of any one particular group and derive an adequate basis for predicting the ultimate college attendance of any freshman class.

5. It is necessary to work from two angles, taking for analysis (1) an entering or freshman class, and (2) a group that has been graduated. By combining the data gathered in (1) and (2) it is possible to arrive at a predictive basis for the ultimate attendance of a similar freshman class.

6. The greatest percentage of those graduated in 1924 were graduated from high school at the age of 18 years.

7. Age at graduation from the university shows a range of 19 to 52 years, with the greatest number graduating at 22.

8. The greatest number of the group Other than Liberal Arts were graduated at the age of 23.

9. In both the Liberal Arts and Other than Liberal Arts groups the greatest number was graduated four years after high school graduation.

10. Seventy-five different categories were required for recording the attendance of those who were graduated in 1924.

11. In this class there was a total of 321 different students who attended a total of 134 different institutions before graduating from the University of Iowa.

12. In the study of the freshman group of 1920 there were two main objectives: (1) to aid in securing the essential data for the prediction of the ultimate college attendance of the freshman group; and (2) to make immediately available all the known data on this group for future reference and additional study.

13. Graduates from high schools in thirty states are found in the freshman class of 1920. In addition, there are seven students from foreign countries. A total of 93.3 per cent were graduated from Iowa high schools, and 6.7 per cent were graduated from schools in other states and foreign countries.

14. Women enter college a longer period after high school graduation than men.

15. The men in the Applied Science group enter college sooner after high school graduation than is the case with the men in the Liberal Arts group.

16. About 65 per cent of the Liberal Arts men and women enter college immediately after high school graduation, and about 58 per cent of the Applied Science group enter without a year intervening.

17. In both the Liberal Arts and Applied Science groups the greatest percentage was graduated four years after high school graduation.

18. A greater percentage of the Liberal Arts men than Liberal Arts women was graduated five years after high school graduation.

19. It is estimated, on the basis of the Liberal Arts group who were graduated at the University of Iowa in 1924, that eventually about 72 per cent of the original freshman class of 1920 will complete at least four years of college work.

20. If all the graduates of 1924 who received Bachelor of Arts and Bachelor of Science degrees are included in the basis for prediction, the percentage of the original freshman class who will eventually complete four years, or more, of college work is seventy-four.

21. It is estimated that about 57 per cent of the original freshman class will eventually complete at least four years of college work at the University of Iowa.

22. It is possible that there is a selective factor operating in

the case of those who are graduated as compared with a freshman group, the more persistent students being the ones who were graduated.

23. For both the men and women in the non-identical group there is a consistent decrease in the variability of intelligence from year to year. Both the mean and median intelligence scores increase consistently from year to year for the men in this group. In the case of the women there is a slight rise in the mean and median for the first three years, and a slight decrease in the mean for the senior year, although the mean rises slightly for those who were graduated. When the two groups are combined they show a consistent increase from year to year in intelligence.

24. The variability of the grade-point averages decreases consistently for the men in the non-identical Liberal Arts group for the four years, and for those who were graduated. In the case of the women there is a consistent decrease for the four years, but a slight increase over the senior year for those who were graduated. For both men and women there is a consistent increase in the mean grade-point averages during the four years, with a slight falling off for those who were graduated. The median grade-point average is consistently higher for the women.

25. The coefficients of correlation between the intelligence and grade-point averages for the non-identical Liberal Arts group afford very interesting comparisons. For the men the correlation for the freshman year is 0.45, with an increase to 0.48 for the sophomore year, a drop to 0.345 for the junior year and a slight rise to 0.35 in the senior year, the correlation for those who were graduated being 0.57. The correlation for the women for the freshman year is 0.60, which is significantly higher than that for the men. It remains at 0.60 for the sophomore year, drops to 0.48 in the junior year, and rises to 0.57 in the senior year, with a correlation of 0.64 for those who were graduated.

26. The data on the identical Liberal Arts group show that the consistent increase in grade-point averages from year to year is not due entirely to the higher mean intelligence of the group, but is in part due to the fact that upperclassmen receive higher grades than freshmen and sophomores, because there are factors other than intelligence operating to bring up the grade-point averages. While this study shows clearly that such factors are operating, it has not attempted to isolate them.

27. For the identical group, the average inter-correlation of the grade-point averages, one year against another, was found to be 0.68. By means of the Spearman-Brown formula the reliability of grade-points for the entire four years was estimated at about 0.89.

28. The grade-point averages are higher and more uniform from year to year for the Liberal Arts group that was graduated after three calendar years, than was found to be the case of the identical Liberal Arts group.

29. In the non-identical Applied Science group the mean grade-point average is more uniform from year to year than that of the non-identical Liberal Arts group.

30. The identical Applied Science group does not show an increase in the grade-point averages from year to year.

31. In the Liberal Arts group the highest mean grade-point average falls in the senior year, whereas for the Applied Science group it falls in the freshman year.

32. As should be expected, in both the Liberal Arts and Applied Science groups, the mean grade-point averages from year to year are higher for the identical than for the non-identical groups.

33. Of all those who dropped out of the class of 1920 at the University of Iowa, the greatest number of both men and women gave lack of funds as the reason. There were as many students with high intelligence scores in this group as there were with low scores.

34. From data gathered in coöperation with the Iowa High School Mental-Educational Survey, it was found that the University of Iowa is enrolling a high type of student as compared with fourteen other college groups.

35. The scores made in the survey by the group which entered college are significantly higher than those for the group which did not enter college.

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APPENDIX

TABLE 8

AGE OF THE 1924 GRADUATES AT THE TIME THEY WERE GRADUATED FROM HIGH SCHOOL

1. Bachelor of Arts: Men

Age in Years	Convocation				
	January	June	July	August	Composite
15	0	1	0	0	1
16	0	3	1	2	6
17	1	21	3	1	26
18	5	29	2	2	38
19	1	18	5	5	29
20	1	6	2	4	13
21	0	3	0	0	3
22	0	1	0	0	1
23	0	0	0	0	0
24	1	0	0	2	3
25	0	1	0	0	1
Total:	9	83	13	16	121

2. Bachelor of Arts: Women

Age in Years	Convocation				
	January	June	July	August	Composite
15	0	0	0	0	0
16	0	15	2	1	18
17	3	65	8	8	84
18	4	91	6	13	114
19	2	37	6	3	48
20	3	5	5	1	14
21	0	3	1	1	5
22	0	0	0	0	0
23	2	0	0	0	2
24	0	0	0	0	0
25	0	1	0	0	1
Total:	14	217	28	27	286

3. Bachelor of Arts: Men and Women

Age in Years	Men	Women	Both
15	1	0	1
16	7	18	25
17	26	84	110
18	39	114	153
19	29	48	77
20	13	14	27
21	3	5	8
22	1	0	1
23	0	2	2
24	3	0	3
25	1	1	2
Total:	123	286	409

4. Other[1] Than Bachelor of Arts: Men

Age in Years	Convocation				Composite
	January	June	July	August	
15	0	3	0	0	3
16	1	13	0	0	14
17	2	51	1	0	54
18	15	123	2	2	142
19	3	64	4	1	72
20	1	28	1	0	30
21	0	4	0	0	4
22	0	5	0	0	5
23	0	2	0	0	2
24	0	0	1	1	2
25	1	0	0	0	1
26	0	0	0	0	0
Total:	23	293	9	4	329

5. Other Than Bachelor of Arts: Women

Age in Years	Convocation				Composite
	January	June	July	August	
15	0	0	0	0	0
16	0	1	0	1	2
17	0	3	0	0	3
18	1	18	2	2	23
19	1	5	0	0	6
20	0	0	0	0	0
21	0	0	0	0	0
22	0	0	0	0	0
23	0	0	0	0	0
24	0	0	0	0	0
25	0	0	0	0	0
26	1	0	0	0	1
Total:	3	27	2	3	35

6. Other Than Bachelor of Arts: Men and Women

Age in Years	Men	Women	Both
15	3	0	3
16	14	2	16
17	54	3	57
18	140	23	163
19	72	6	78
20	30	0	30
21	4	0	4
22	5	0	5
23	2	0	2
24	2	0	2
25	1	0	1
26	0	1	1
Total:	327	35	362

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[1] See footnote on page 10.

TABLE 9

AGE OF THE 1924 GRADUATES AT THE TIME THEY WERE GRADUATED FROM THE STATE UNIVERSITY OF IOWA

1. Bachelor of Arts: Men

Age in Years	Convocation				
	January	June	July	August	Composite
19	0	1	1	0	2
20	0	1	1	1	3
21	0	13	1	0	14
22	0	19	2	2	23
23	0	13	5	3	21
24	1	13	3	1	18
25	2	12	2	4	20
26	2	3	2	2	9
27	2	3	0	0	5
28	0	1	1	2	4
29	0	1	0	0	1
30	1	2	0	0	3
31	1	1	0	0	2
32	0	1	0	1	2
33	0	0	0	2	2
34	0	0	0	0	0
36	0	0	0	0	0
37	1	0	0	0	1
48	0	0	0	0	0
51	0	1	0	0	1
52	0	0	0	0	0
Total:	10	85	18	18	131

2. Bachelor of Arts: Women

Age in Years	Convocation				
	January	June	July	August	Composite
19	0	0	0	0	0
20	1	6	3	1	11
21	1	50	4	2	57
22	3	69	5	7	84
23	1	50	5	5	61
24	1	24	7	7	39
25	4	12	2	2	20
26	0	7	1	1	9
27	0	4	1	2	7
28	3	3	0	0	6
29	1	2	0	0	3
30	1	1	1	1	4
31	0	2	0	0	2
32	2	1	1	1	5
33	0	2	0	0	2
34	0	0	1	0	1
36	0	1	0	0	1
37	0	0	0	0	0
48	0	1	0	0	1
51	0	0	0	0	0
52	0	0	0	1	1
Total:	18	235	31	30	314

3. Bachelor of Arts: Men and Women

Age in Years	Men	Women	Both
19	2	0	2
20	3	11	14
21	14	57	71
22	23	84	107
23	21	61	82
24	18	39	57
25	20	20	40
26	9	9	18
27	5	7	12
28	4	6	10
29	1	3	4
30	3	4	7
31	2	2	4
32	2	5	7
33	2	2	4
34	0	1	1
36	0	1	1
37	1	0	1
48	0	1	1
51	1	0	1
52	0	1	1
Total:	131	314	445

4. Other[1] Than Bachelor of Arts: Men

Age in Years	Convocation				Composite
	January	June	July	August	
19	0	1	0	0	1
20	0	6	0	0	6
21	0	22	0	0	22
22	3	66	2	1	72
23	6	62	2	1	71
24	5	43	1	0	49
25	3	35	2	1	41
26	3	31	1	0	35
27	1	20	2	0	23
28	0	11	1	0	12
29	1	8	0	0	9
30	1	7	0	1	9
33	0	0	0	0	0
34	1	0	0	1	2
35	0	1	1	0	2
36	1	0	0	0	1
37	0	0	0	0	0
38	0	1	0	0	1
40	0	1	0	0	1
42	0	0	0	0	0
46	0	0	0	0	0
48	0	0	0	0	0
49	0	0	1	0	1
Total:	25	315	13	5	358

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[1] See footnote on page 10.

5. Other Than Bachelor of Arts: Women

Age in Years	Convocation				
	January	June	July	August	Composite
19	0	0	0	0	0
20	0	2	0	0	2
21	0	2	0	0	2
22	0	6	0	0	6
23	0	8	1	0	9
24	0	3	0	0	3
25	1	0	1	0	2
26	0	0	0	0	0
27	0	2	0	0	2
28	1	0	0	1	2
29	0	0	0	0	0
30	0	1	0	0	1
33	0	1	0	0	1
34	0	0	0	0	0
35	0	0	0	0	0
36	0	0	0	0	0
37	0	1	0	1	2
38	1	0	0	1	2
40	0	0	0	0	0
42	0	1	0	0	1
46	0	1	0	0	1
48	0	1	0	0	1
49	0	0	0	0	0
Total:	3	29	2	3	37

6. Other Than Bachelor of Arts: Men and Women

Age in Years	Men	Women	Both
19	1	0	1
20	6	2	8
21	22	2	24
22	72	6	78
23	71	9	80
24	49	3	52
25	41	2	43
26	35	0	35
27	23	2	25
28	12	2	14
29	9	0	9
30	9	1	10
33	0	1	1
34	2	0	2
35	2	0	2
36	1	0	1
37	0	2	2
38	1	2	3
40	1	0	1
42	0	1	1
46	0	1	1
48	0	1	1
49	1	0	1
Total:	358	37	395

TABLE 10

YEARS BETWEEN GRADUATION FROM HIGH SCHOOL AND FROM THE STATE UNIVERSITY OF IOWA

1. Bachelor of Arts: Men

Years	Number at Each Convocation, 1924				
Between	January	June	July	August	Total No.
2	0	0	1	0	1
3	0	0	0	1	1
4	0	39	7	4	50
5	0	21	2	5	28
6	1	10	2	1	14
7	3	7	1	0	11
8	4	0	0	1	5
9	0	4	0	3	7
10	0	1	0	0	1
11	0	1	0	0	1
12	1	0	0	1	2
13	0	0	0	0	0
14	0	1	0	0	1
15	0	0	0	0	0
19	0	0	0	0	0
24	0	0	0	0	0
30	0	1	0	0	1
Total:	9	85	13	16	123

2. Bachelor of Arts: Women

Years	Number at Each Convocation, 1924				
Between	January	June	July	August	Total No.
2	0	0	0	0	0
3	0	0	6	0	6
4	2	119	6	11	138
5	5	45	7	3	60
6	3	26	3	7	39
7	0	10	2	1	13
8	1	5	1	1	8
9	2	4	0	2	8
10	2	2	1	0	5
11	0	2	0	1	3
12	0	0	0	0	0
13	0	0	1	0	1
14	0	1	1	1	3
15	0	1	0	0	1
19	0	1	0	0	1
24	0	1	0	0	1
30	0	1	0	0	1
Total:	15	218	28	27	288

3. Other[1] Than Bachelor of Arts: Men

Years Between	Number at Each Convocation, 1924				Total No.
	January	June	July	August	
2	0	5	0	0	5
3	0	9	0	0	9
4	2	97	4	1	104
5	7	53	0	1	61
6	6	39	2	1	48
7	1	35	0	0	36
8	4	15	1	0	20
9	1	20	0	0	21
10	0	12	0	1	13
11	0	3	1	0	4
12	1	4	0	0	5
13	0	1	0	0	1
18	1	0	0	0	1
19	0	0	0	0	0
23	0	0	0	0	0
29	0	0	0	0	0
32	0	0	1	0	1
Total:	23	293	9	4	329

[1] See footnote on page 10.

4. Other Than Bachelor of Arts: Women

Years Between	Number at Each Convocation, 1924				Total No.
	January	June	July	August	
2	0	1	0	0	1
3	0	0	0	0	0
4	0	11	0	0	11
5	0	5	1	0	6
6	0	3	0	0	3
7	1	0	1	0	2
8	0	1	0	0	1
9	1	1	1	0	3
10	0	0	0	1	1
11	0	1	0	0	1
12	1	0	0	0	1
13	0	0	0	0	0
18	0	0	0	0	0
19	0	0	0	1	1
22	0	0	0	1	1
23	0	1	0	0	1
29	0	1	0	0	1
30	0	1	0	0	1
32	0	0	0	0	0
Total:	3	26	3	3	35

TABLE 11

YEARS BETWEEN GRADUATION FROM HIGH SCHOOL AND FROM THE STATE UNIVERSITY OF IOWA AND THE PERCENTAGE FOR EACH YEAR

1. Bachelor of Arts

Years	Men	Percentages	Women	Percentages	Both	Percentages
2	1	0.8	0	0.0	1	0.2
3	1	0.8	6	2.1	7	1.7
4	50	40.7	138	47.9	188	45.7
5	28	22.8	60	20.8	88	21.4
6	14	11.4	39	13.5	53	12.9
7	11	8.9	13	4.5	24	5.8
8	5	4.1	8	2.8	13	3.2
9	7	5.7	8	2.8	15	3.6
10	1	0.8	5	1.7	6	1.5
11	1	0.8	3	1.0	4	1.0
12	2	1.6	0	0.0	2	0.5
13	0	0.0	1	0.3	1	0.2
14	1	0.8	3	1.0	4	1.0
15	0	0.0	1	0.3	1	0.2
19	0	0.0	1	0.3	1	0.2
24	0	0.0	1	0.3	1	0.2
30	1	0.8	1	0.3	2	0.5
	N 123		N 288		N 411	

2. Bachelor of Science

Years	Men	Percentages	Women	Percentages	Both	Percentages
2	0	0.0	1	2.8	1	0.5
3	2	1.4	0	0.0	2	1.1
4	56	38.1	11	31.4	67	36.8
5	32	21.8	6	17.1	38	20.9
6	19	12.9	3	8.6	22	12.1
7	15	10.2	2	5.6	17	9.3
8	9	6.1	1	2.8	10	5.5
9	7	4.8	3	8.6	10	5.5
10	3	2.0	1	2.8	4	2.2
11	1	0.7	1	2.8	2	1.1
12	1	0.7	1	2.8	2	1.1
18	1	0.7	0	0.0	1	0.5
19	0	0.0	1	2.8	1	0.5
22	0	0.0	1	2.8	1	0.5
23	0	0.0	1	2.8	1	0.5
29	0	0.0	1	2.8	1	0.5
30	0	0.0	1	2.8	1	0.5
32	1	0.7	0	0.0	1	0.5
	N 147		N 35		N 182	

3. Bachelor of Arts and Bachelor of Science

Years	B. A. Men Women No.	B. S. Men Women No.	Both Men Women No.	Percentages
2	1	1	2	0.34
3	7	2	9	1.52
4	188	67	255	43.00
5	88	38	126	21.25
6	53	22	75	12.65
7	24	17	41	6.91
8	13	10	23	3.88
9	15	10	25	4.22
10	6	4	10	1.69
11	4	2	6	1.01
12	2	2	4	0.67
13	1	0	1	0.17
14	4	0	4	0.67
15	1	0	1	0.17
18	0	1	1	0.17
19	1	1	2	0.34
22	0	1	1	0.17
23	0	1	1	0.17
24	1	0	1	0.17
29	0	1	1	0.17
30	2	1	3	0.51
32	0	1	1	0.17
	N 411	N 182	N 593	

4. Other[1] Than Bachelor of Arts

Years	Men	Percentages	Women	Percentages	Both	Percentages
2	5	1.5	1	2.9	6	1.7
3	9	2.7	0	0.0	9	2.5
4	103	31.4	11	31.4	114	31.4
5	61	18.6	6	17.1	67	18.4
6	48	14.6	3	8.6	51	14.1
7	36	11.0	2	5.7	38	10.5
8	20	6.1	1	2.9	21	5.8
9	21	6.4	3	8.6	24	6.6
10	13	4.0	1	2.9	14	3.9
11	4	1.2	1	2.9	5	1.4
12	5	1.5	1	2.9	6	1.7
13	1	0.3	0	0.0	1	0.3
18	1	0.3	0	0.0	1	0.3
19	0	0.0	1	2.9	1	0.3
22	0	0.0	1	2.9	1	0.3
23	0	0.0	1	2.9	1	0.3
29	0	0.0	1	2.9	1	0.3
30	0	0.0	1	2.9	1	0.3
32	1	0.3	0	0.0	1	0.3
	N 328		N 35		N 363	

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[1] See footnote on page 10.

TABLE 12

DETAILED RECORD OF ATTENDANCE AT THE STATE UNIVERSITY OF IOWA BY THE LIBERAL ARTS GRADUATES OF 1924

1. January Convocation: Men

Number of Regular University Years								Additional Attendance[1]
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	0	0	1	0	1	0	— — — — — — —
0	0	0	0	2	1	0	0	1s and 1C
0	0	0	1	0	0	0	0	1s and 2C
0	0	0	0	0	0	1	0	2s and 2C
—	—	—	—	—	—	—	—	
0	0	0	1	3	1	2	0	

[1] See page 10 for aid in reading table.

1. January Convocation: Women

Number of Regular University Years								Additional Attendance[1]
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	5	0	0	1	0	0	— — — — — — —
0	0	0	1	1	1	0	0	1s
0	0	2	3	2	0	0	0	2s
0	0	1	0	0	0	0	0	3s
0	1	0	0	0	0	0	0	1s and 1C
0	0	0	1	0	0	0	0	1s and 4C
0	0	0	0	0	1	0	0	2s and 2C
0	0	0	1	0	0	0	0	3s and 1C
—	—	—	—	—	—	—	—	
0	1	8	6	3	3	0	0	

[1] Summer Session (s), Correspondence (C), and Saturday Classes (Sa.)

1. January Convocation: Men and Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	5	0	1	1	1	0	— — — — — — —
0	0	0	1	1	1	0	0	1s
0	0	2	3	2	0	0	0	2s
0	0	1	0	0	0	0	0	3s
0	1	0	0	2	1	0	0	1s and 1C
0	0	0	1	0	0	0	0	1s and 2C
0	0	0	1	0	0	0	0	1s and 4C
0	0	0	0	0	1	1	0	2s and 2C
0	0	0	1	0	0	0	0	3s and 1C
—	—	—	—	—	—	—	—	
0	1	8	7	6	4	2	0	

The figures under the Arabic numerals in parentheses indicate the total number of students spending that number (the number in parentheses directly above it) of regular university years plus whatever additional attendance is indicated in the same horizontal line under Additional Attendance at the University of Iowa. Those in the first line had no additional attendance, there being eight such students, five of whom were here two years, one four years, one five years, and one six years. In the second line read as follows: One student was here three years and one summer; one four years and one summer; and one, five years and one summer.

2. June Convocation: Men

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	2	5	5	30	8	1	0	— — — — — — —
0	0	5	1	9	3	0	0	1s
0	0	1	1	6	1	1	0	2s
0	0	1	0	0	0	0	0	3s
0	0	1	0	1	1	0	0	1s and 1C
0	0	1	0	0	0	0	0	1s and 2C
0	0	0	0	0	1	0	0	1s and 3C
0	0	0	1	0	0	0	0	1s and 1Sa
0	0	0	1	1	0	0	0	2s and 1C
0	0	0	1	0	0	0	0	1C
0	0	1	0	0	0	0	0	2C and 1Sa
0	2	15	10	47	14	2	0	

2. June Convocation: Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	15	38	27	70	2	1	0	— — — — — — —
0	4	7	4	23	5	0	0	1s
0	0	1	2	4	2	1	0	2s
0	0	0	1	1	1	0	0	3s
0	2	1	2	4	0	0	0	1s and 1C
0	0	0	1	4	0	0	0	1s and 2C
0	1	0	0	0	0	0	0	1s and 3C
0	1	0	1	0	0	0	0	2s and 1C
0	0	0	1	0	1	0	0	2s and 4C
0	0	0	1	0	0	0	0	3s and 1C
0	0	0	0	1	0	0	0	4s and 2C
0	0	1	2	0	0	0	0	1C
0	0	0	4	0	0	0	0	3C
0	0	0	0	1	0	0	0	1Sa
0	23	48	46	108	11	2	0	

2. June Convocation: Men and Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	17	43	32	100	10	2	0	— — — — — — —
0	4	12	5	32	8	0	0	1s
0	0	2	3	10	3	2	0	2s
0	0	1	1	1	1	0	0	3s
0	2	2	2	5	1	0	0	1s and 1C
0	0	1	1	4	0	0	0	1s and 2C
0	1	0	0	0	1	0	0	1s and 3C
0	0	0	1	0	0	0	0	1s and 1Sa
0	1	0	2	1	0	0	0	2s and 1C
0	0	0	1	0	1	0	0	2s and 4C
0	0	0	1	0	0	0	0	3s and 1C
0	0	0	0	1	0	0	0	4s and 2C
0	0	1	3	0	0	0	0	1C
0	0	0	4	0	0	0	0	3C
0	0	1	0	0	0	0	0	2C and 1Sa
0	0	0	0	1	0	0	0	1Sa
0	25	63	56	155	25	4	0	

3. July Convocation: Men

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	1	0	0	5	3	0	0	— — — — — — — —
0	1	0	0	1	1	0	0	1s
0	0	0	0	1	1	0	0	2s
0	0	0	0	1	0	0	0	3s
0	1	0	0	0	0	0	0	1s and 1C
0	0	0	1	0	0	0	0	1s and 2C
1	0	0	0	0	0	0	0	2s and 5C and 1Sa
1	3	0	1	8	5	0	0	

3. July Convocation: Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	4	2	0	3	1	0	0	— — — — — — — —
0	2	2	1	0	1	1	0	1s
0	1	1	4	2	0	0	0	2s
0	0	1	0	0	0	0	0	3s
0	0	1	1	1	0	0	0	1s and 1C
0	0	1	0	0	0	0	0	2s and 1C
0	0	1	0	0	0	0	0	1C
0	7	9	6	6	2	1	0	

3. July Convocation: Men and Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	5	2	0	8	4	0	0	— — — — — — — —
0	3	2	1	1	2	1	0	1s
0	1	1	4	3	1	0	0	2s
0	0	1	0	1	0	0	0	3s
0	1	1	1	1	0	0	0	1s and 1C
0	0	0	1	0	0	0	0	1s and 2C
0	0	1	0	0	0	0	0	2s and 1C
1	0	0	0	0	0	0	0	2s and 5C and 1Sa
0	0	1	0	0	0	0	0	1C
1	10	9	7	14	7	1	0	

4. August Convocation: Men

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	2	1	0	3	0	0	0	— — — — — — — —
0	0	1	0	2	1	0	0	1s
0	1	0	1	1	1	0	0	2s
0	1	0	0	0	0	0	0	1s and 3C
0	0	0	1	0	0	0	0	2s and 2C
0	0	0	1	0	0	0	0	2s and 3C
0	4	2	3	6	2	0	0	

4. August Convocation: Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	3	4	2	0	1	0	0	— — — — — — —
0	0	1	3	2	1	0	0	1s
0	0	0	1	1	0	0	0	2s
0	0	0	0	0	0	1	0	3s
0	0	2	0	0	0	0	0	1s and 1C
1	0	0	0	1	0	0	0	1s and 2C
1	1	0	0	1	0	0	0	2s and 1C
0	0	0	1	0	0	0	0	2s and 3C
0	0	0	1	0	0	0	0	3s and 1C
1	0	0	0	0	0	0	0	4s and 4C and 1Sa
0	0	0	1	1	0	0	0	1C
3	4	7	9	6	2	1	0	

4. August Convocation: Men and Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	5	5	2	3	1	0	0	— — — — — — —
0	0	2	3	4	2	0	0	1s
0	1	0	2	2	1	0	0	2s
0	0	0	0	0	0	1	0	3s
0	0	2	0	0	0	0	0	1s and 1C
1	0	0	0	1	0	0	0	1s and 2C
0	1	0	0	0	0	0	0	1s and 3C
1	1	0	0	1	0	0	0	2s and 1C
0	0	0	1	0	0	0	0	2s and 2C
0	0	0	2	0	0	0	0	2s and 3C
0	0	0	1	0	0	0	0	3s and 1C
1	0	0	0	0	0	0	0	4s and 4C and 1Sa
0	0	0	1	1	0	0	0	1C
3	8	9	12	12	4	1	0	

5. Composite of Men and Women 1, 2, 3, and 4

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	27	55	34	112	16	3	0	— — — — — — —
0	7	16	10	38	13	1	0	1s
0	2	5	12	17	5	2	0	2s
0	0	3	1	2	1	1	0	3s
0	4	5	3	8	2	0	0	1s and 1C
1	0	1	3	5	0	0	0	1s and 2C
0	2	0	0	0	1	0	0	1s and 3C
0	0	0	1	0	0	0	0	1s and 4C
0	0	0	1	0	0	0	0	1s and 1Sa
0	2	1	2	1	0	0	0	2s and 1C
0	0	0	1	0	1	1	0	2s and 2C
0	0	0	2	0	0	0	0	2s and 3C
0	0	0	1	0	1	0	0	2s and 4C
1	0	0	0	0	0	0	0	2s and 5C and 1Sa
0	0	0	3	0	0	0	0	3s and 1C
0	0	0	0	1	0	0	0	4s and 2C
1	0	0	0	0	0	0	0	4s and 4C and 1Sa
0	0	2	4	1	0	0	0	1C
0	0	0	4	0	0	0	0	3C
0	0	1	0	0	0	0	0	2C and 1Sa
0	0	0	0	1	0	0	0	1Sa
3	44	89	82	186	40	8	0	

TABLE 13

DETAILED RECORD OF ATTENDANCE AT THE STATE UNIVERSITY OF IOWA BY OTHER[1] THAN THE LIBERAL ARTS GRADUATES OF 1924

1. January Convocation: Men

Number of Regular University Years								Additional Attendance[2]
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	1	0	1	9	1	0	— — — — — — —
0	0	2	0	1	2	1	0	1s
0	0	0	1	0	0	1	0	2s
0	0	0	0	0	1	0	0	3s
0	0	0	0	1	0	0	0	1s and 1C
0	0	1	0	0	0	0	0	1s and 2C
0	0	0	0	0	1	0	0	1s and 4C
0	0	0	1	0	0	0	0	1s and 5C
0	0	4	2	3	13	3	0	

1. January Convocation: Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	2	0	0	0	0	0	1s
0	0	1	0	0	0	0	0	2s and 2C
0	0	3	0	0	0	0	0	

1. January Convocation: Men and Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	1	0	1	9	1	0	— — — — — — —
0	0	4	0	1	2	1	0	1s
0	0	0	1	0	0	1	0	2s
0	0	0	0	0	1	0	0	3s
0	0	0	0	1	0	0	0	1s and 1C
0	0	1	0	0	0	0	0	1s and 2C
0	0	0	0	0	1	0	0	1s and 4C
0	0	0	1	0	0	0	0	1s and 5C
0	0	1	0	0	0	0	0	2s and 2C
0	0	7	2	3	13	3	0	

2. June Convocation: Men

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	3	18	18	135	30	9	2	— — — — — — —
0	0	4	5	19	18	7	3	1s
0	0	0	4	1	3	3	0	2s
0	0	0	1	2	0	1	0	3s
0	0	0	0	0	1	0	0	4s
0	0	1	1	1	1	1	0	1s and 1C
0	0	0	0	1	0	0	1	1s and 2C
0	0	0	1	0	0	0	0	3s and 1C
0	0	0	0	0	0	1	1	1C
0	0	0	0	0	0	2	0	2C
0	3	23	30	159	53	24	7	

One student, eight years and one summer.

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[1] See footnote on page 10.

[2] Summer Session (s), Correspondence (C), and Saturday Classes (Sa).

2. June Convocation: Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	1	7	6	11	3	0	1	— — — — — — — —
0	1	2	1	8	0	1	1	1s
0	0	0	1	3	1	1	0	2s
0	0	0	0	1	1	0	1	3s
0	0	0	0	1	0	0	0	4s
0	0	0	1	0	0	0	0	1s and 1C
0	0	0	1	0	0	1	0	1C
0	2	9	10	24	5	3	3	

2. June Convocation: Men and Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	4	25	24	146	33	9	3	— — — — — — — —
0	1	6	6	27	18	8	4	1s
0	0	0	5	4	4	4	0	2s
0	0	0	1	3	1	1	1	3s
0	0	0	0	1	1	0	0	4s
0	0	1	2	1	1	1	0	1s and 1C
0	0	0	0	1	0	0	1	1s and 2C
0	0	0	1	0	0	0	0	3s and 1C
0	0	0	1	0	0	2	1	1C
0	0	0	0	0	0	2	0	2C
0	5	32	40	183	58	27	10	

One student, eight years and one summer.

3. July Convocation: Men

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	0	0	2	0	0	0	— — — — — — — —
0	0	2	0	2	0	0	0	1s
0	0	0	1	0	2	0	0	2s
0	0	0	1	0	0	0	0	3s
0	0	0	0	0	1	0	0	1s and 1C
0	1	0	0	0	0	0	0	2s and 1C and 3Sa
0	0	0	0	1	0	0	0	2C
0	1	2	2	5	3	0	0	

3. July Convocation: Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	0	0	2	0	0	1	— — — — — — —

3. July Convocation: Men and Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	0	0	4	0	0	1	— — — — — — —
0	0	2	0	2	0	0	0	1s
0	0	0	1	0	2	0	0	2s
0	0	0	1	0	0	0	0	3s
0	0	0	0	0	1	0	0	1s and 1C
0	1	0	0	0	0	0	0	2s and 1C and 3Sa
0	0	0	0	1	0	0	0	2C
0	1	2	2	7	3	0	1	

4. August Convocation: Men

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	0	1	0	2	0	0	— — — — — — —
0	0	2	0	0	0	0	0	1s
0	0	0	0	1	0	0	0	2s
0	1	0	0	0	0	0	0	3s and 3C and 1Sa
0	1	2	1	1	2	0	0	

4. August Convocation: Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	1	0	0	0	0	0	0	1s
0	0	0	0	1	0	0	0	2s
0	0	0	0	1	0	0	0	1s and 3C
0	1	0	0	0	0	0	0	1s and 3C and 1Sa
0	2	0	0	2	0	0	0	

4. August Convocation: Men and Women

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	0	0	1	0	2	0	0	— — — — — — —
0	1	2	0	0	0	0	0	1s
0	0	0	0	2	0	0	0	2s
0	0	0	0	1	0	0	0	1s and 3C
0	1	0	0	0	0	0	0	1s and 3C and 1Sa
0	1	0	0	0	0	0	0	3s and 3C and 1Sa
0	3	2	1	3	2	0	0	

5. Composite of Men and Women 1, 2, 3, and 4

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	4	26	25	151	44	10	4	— — — — — — —
0	2	14	6	30	20	9	4	1s
0	0	0	7	6	6	5	0	2s
0	0	0	2	3	2	1	1	3s
0	0	0	0	1	1	0	0	4s
0	0	1	2	2	2	1	0	1s and 1C
0	0	1	0	1	0	0	1	1s and 2C
0	0	0	0	1	0	0	0	1s and 3C
0	0	0	0	0	1	0	0	1s and 4C
0	0	0	1	0	0	0	0	1s and 5C
0	1	0	0	0	0	0	0	1s and 3C and 1Sa
0	0	1	0	0	0	0	0	2s and 2C
0	1	0	0	0	0	0	0	2s and 1C and 3Sa
0	0	0	1	0	0	0	0	3s and 1C
0	1	0	0	0	0	0	0	3s and 3C and 1Sa
0	0	0	1	0	0	2	1	1C
0	0	0	0	1	0	2	0	2C
0	9	43	45	196	76	30	11	

One student, eight years and one summer.

TABLE 14

DETAILED RECORD OF ATTENDANCE AT THE STATE UNIVERSITY OF IOWA BY ALL BACHELOR DEGREE GRADUATES OF 1924

A composite of Tables 12 and 13.

Number of Regular University Years								Additional Attendance
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
0	31	81	59	263	60	13	4	— — — — — — —
0	9	30	16	68	33	10	4	1s
0	2	5	19	23	11	7	0	2s
0	0	3	3	5	3	2	1	3s
0	0	0	0	1	1	0	0	4s
0	4	6	5	10	4	1	0	1s and 1C
1	0	2	3	6	0	0	1	1s and 2C
0	2	0	0	1	1	0	0	1s and 3C
0	0	0	1	0	1	0	0	1s and 4C
0	0	0	1	0	0	0	0	1s and 5C
0	1	0	0	0	0	0	0	1s and 3C and 1Sa
0	0	0	1	0	0	0	0	1s and 1Sa
0	2	1	2	1	0	0	0	2s and 1C
0	0	1	1	0	1	1	0	2s and 2C
0	0	0	2	0	0	0	0	2s and 3C
0	0	0	1	0	1	0	0	2s and 4C
1	0	0	0	0	0	0	0	2s and 5C and 1Sa
0	1	0	0	0	0	0	0	2s and 1C and 3Sa
0	0	0	4	0	0	0	0	3s and 1C
0	1	0	0	0	0	0	0	3s and 3C and 1Sa
0	0	0	0	1	0	0	0	4s and 2C
1	0	0	0	0	0	0	0	4s and 4C and 1Sa
0	0	2	5	1	0	2	1	1C
0	0	0	0	1	0	2	0	2C
0	0	0	4	0	0	0	0	3C
0	0	1	0	0	0	0	0	2C and 1Sa
0	0	0	0	1	0	0	0	1Sa
3	53	132	127	382	116	38	11	

One student, eight years and one summer.

TABLE 15

ATTENDANCE AT COLLEGES OTHER THAN THE STATE UNIVERSITY OF IOWA BY THE GRADUATES OF 1924

1. Bachelor of Arts: Men

Name of Institution	No.	Number of Years Attendance						
		X	½	1	1½	2	3	4
Augustana	1	0	0	0	0	1	0	0
Carthage	1	1	0	0	0	0	0	0
Central	1	0	0	0	0	1	0	0
Clark U.	1	0	0	0	0	1	0	0
Coe	2	1	0	1	0	0	0	0
Columbia (Dubuque)	2	1	0	0	0	1	0	0
Cornell	2	0	0	1	0	1	0	0
Creighton U.	1	0	0	1	0	0	0	0
Culver	1	0	1	0	0	0	0	0
Drake U.	3	0	1	1	0	1	0	0
Ellsworth	1	0	1	0	0	0	0	0
Epworth Sem.	1	0	0	1	0	0	0	0
Futau (China)	1	0	0	0	0	0	1	0
Grinnell	8	0	0	2	0	3	2	1

1. Bachelor of Arts: Men continued

Name of Institution	No.	Number of Years Attendance X	½	1	1½	2	3	4
Iowa State College	8	5	1	1	1	0	0	0
Iowa State Teachers College	2	0	1	1	0	0	0	0
Lombard	1	0	0	1	0	0	0	0
McPherson	1	0	0	0	0	1	0	0
Morningside	3	0	0	1	0	2	0	0
Northwestern U.	1	1	0	0	0	0	0	0
Parsons	2	0	0	0	0	2	0	0
Penn	1	0	0	1	0	0	0	0
U. of Akron	1	0	0	1	0	0	0	0
U. of Calcutta	1	1	0	0	0	0	0	0
U. of California	1	1	0	0	0	0	0	0
U. of Illinois	1	1	0	0	0	0	0	0
U. of Missouri	1	0	0	0	0	0	0	1
U. of South Dakota	1	0	0	0	0	1	0	0
U. of Texas	1	0	0	0	1	0	0	0
U. of Valparaiso	1	0	0	0	1	0	0	0
U. of Wisconsin	2	1	0	1	0	0	0	0
Upper Iowa U.	2	1	0	1	0	0	0	0
Wartburg	2	0	0	1	0	1	0	0
Western Union	1	0	0	0	0	0	1	0
Wiley	1	0	0	0	0	0	0	1

2. Bachelor of Arts: Women

Name of Institution	No.	Number of Years Attendance X	½	1	1½	2	3	4
Augustana	3	1	0	1	0	0	1	0
Aurora	1	0	0	0	0	0	0	1
Baldwin School	1	0	0	0	0	1	0	0
Boston U.	1	0	0	1	0	0	0	0
Bradford Academy	1	0	0	0	0	1	0	0
Bradley Poly. Inst.	1	1	0	0	0	0	0	0
Brown U.	1	0	0	0	0	1	0	0
Buena Vista	1	0	0	0	0	0	1	0
Burlington Junior	1	0	0	0	0	1	0	0
Cape Girardeau State Normal	1	1	0	0	0	0	0	0
Carleton	1	0	0	0	1	0	0	0
Carthage	1	0	0	0	0	1	0	0
Central Holiness U.	1	0	0	0	0	0	0	1
Chicago Training School	1	0	0	1	0	0	0	0
Coe	8	1	0	3	0	3	1	0
Coll. of St. Theresa	3	0	0	0	0	3	0	0
Colorado A. & N. U.	1	1	0	0	0	0	0	0
Colorado	1	0	0	0	0	1	0	0
Colorado State Teachers	2	1	0	1	0	0	0	0
Columbia U.	1	1	0	0	0	0	0	0
Cornell	11	1	0	3	0	6	1	0
Crescent	1	0	0	1	0	0	0	0
Dakota Wesleyan U.	1	1	0	0	0	0	0	0
Des Moines U.	4	1	0	2	0	0	1	0
Drake U.	9	0	0	3	1	2	3	0
Ellsworth	1	0	0	1	0	0	0	0
Ferry Hall	2	1	0	1	0	0	0	0
Findley	1	0	0	1	0	0	0	0
Frances Shimer School	3	0	0	1	1	1	0	0
Graceland	3	0	0	0	0	2	1	0
Grinnell	15	0	0	6	0	9	0	0

4. Other Than Bachelor of Arts: Women

Name of Institution	No.	Number of Years Attendance						
		X	½	1	1½	2	3	4
Columbia U.	1	0	1	0	0	0	0	0
Des Moines U.	2	1	1	0	0	0	0	0
Detroit Teachers Coll.	1	0	1	0	0	0	0	0
Graceland	2	0	0	0	0	2	0	0
Grinnell	1	0	0	1	0	0	0	0
Iowa State College	2	0	2	0	0	0	0	0
Iowa State T. C.	4	0	0	0	1	3	0	0
Iowa Wesleyan	1	0	1	0	0	0	0	0
Lewis Institute	1	0	0	0	1	0	0	0
Lincoln Institute	1	0	1	0	0	0	0	0
National Kindergarten and Elem. Coll	1	0	1	0	0	0	0	0
Nurses' Training Sch. Mercy Hospital	1	0	0	0	0	0	1	0
Rockford	1	0	1	0	0	0	0	0
Sargent School of Physical Education	1	0	0	1	0	0	0	0
Sioux City Normal Sch.	1	0	0	0	0	0	1	0
State Man. Trg. Normal Sch. (Kansas)	1	0	0	0	1	0	0	0
U. of Chicago	3	1	2	0	0	0	0	0
U. of Illinois	1	0	1	0	0	0	0	0
U. of Kansas	2	0	1	1	0	0	0	0
U. of Southern California	1	0	1	0	0	0	0	0
U. of Utah	2	0	0	1	1	0	0	0

5. Composite of (1), (2), (3), and (4)

Name of Institution	No.	Number of Years Attendance						
		X	½	1	1½	2	3	4
Augustana	6	1	1	1	0	1	2	0
Aurora	1	0	0	0	0	0	0	1
Baldwin School	1	0	0	0	0	1	0	0
Boston U.	2	0	1	1	0	0	0	0
Bradford Academy	1	0	0	0	0	1	0	0
Bradley Poly. Inst.	2	1	0	1	0	0	0	0
Brown U.	1	0	0	0	0	1	0	0
Bryant & Stratton Business (Chicago)	1	1	0	0	0	0	0	0
Buena Vista	2	0	0	1	0	0	1	0
Burlington Junior	1	0	0	0	0	1	0	0
California Inst. of Technology	1	0	0	1	0	0	0	0
Cape Girardeau State Normal	1	1	0	0	0	0	0	0
Carleton	1	0	0	0	1	0	0	0
Carthage	4	2	0	1	0	1	0	0
Central	1	0	0	0	0	1	0	0
Central Holiness U.	2	0	0	1	0	0	0	1
Chicago Training School	1	0	0	1	0	0	0	0
Clark U.	2	0	0	0	0	1	1	0
Coe	19	6	1	7	0	3	2	0
Coll. of Emporia	1	0	0	0	1	0	0	0
Coll. of St. Theresa	3	0	0	0	0	3	0	0
Coll. of St. Thomas	1	1	0	0	0	0	0	0
Colorado A. & N. U.	1	1	0	0	0	0	0	0
Colorado	1	0	0	0	0	1	0	0
Colorado State Teachers	2	1	0	1	0	0	0	0
Columbia (Dubuque)	3	1	0	1	0	1	0	0
Columbia U. (N.Y.)	2	1	1	0	0	0	0	0
Cornell	18	2	1	5	0	8	2	0
Creighton	1	0	0	1	0	0	0	0
Crescent	1	0	0	1	0	0	0	0

5. Composite of (1), (2), (3), and (4) continued

		Number of Years Attendance						
Name of Institution	No.	X	½	1	1½	2	3	4
Culver	1	0	1	0	0	0	0	0
Dakota Wesleyan U.	1	1	0	0	0	0	0	0
Des Moines U.	7	2	2	2	0	0	1	0
Detroit Teachers Coll.	1	0	1	0	0	0	0	0
Drake U.	16	0	2	6	2	3	3	0
Dubuque College	2	0	1	0	0	1	0	0
Earlham	1	0	0	0	0	0	0	1
Ellsworth	2	0	1	1	0	0	0	0
Epworth Sem.	1	0	0	1	0	0	0	0
Eureka	1	0	0	0	0	1	0	0
Ferry Hall	2	1	0	1	0	0	0	0
Findley	1	0	0	1	0	0	0	0
Foreign School (?)	1	0	0	0	0	1	0	0
Frances Shimer School	3	0	0	1	1	1	0	0
Futau (China)	1	0	0	0	0	0	1	0
Graceland	5	0	0	0	0	4	1	0
Grinnell	36	0	2	10	1	18	4	1
Hall-Moody School	1	0	0	0	0	0	0	1
Harris Teachers	1	1	0	0	0	0	0	0
Harvard	1	0	1	0	0	0	0	0
Highland Park	1	0	0	0	0	1	0	0
Illinois State Normal U.	2	0	1	1	0	0	0	0
International Y.M.C.A.	1	0	0	1	0	0	0	0
Iowa State College	28	8	6	6	2	5	0	1
Iowa State T. C.	38	10	6	9	1	7	2	3
Iowa Wesleyan	8	2	1	3	0	2	0	0
Irish Business	1	1	0	0	0	0	0	0
Johnson Bible Academy	1	0	0	0	0	1	0	0
Kansas State Normal	1	1	0	0	0	0	0	0
Knox	1	0	0	1	0	0	0	0
Lewis Institute	1	0	0	0	1	0	0	0
Lincoln Institute	1	0	1	0	0	0	0	0
Lombard	1	0	0	1	0	0	0	0
McMinnville	1	0	0	0	0	0	1	0
McPherson	1	0	0	0	0	1	0	0
Madison State Normal	1	0	0	0	0	0	0	1
Mason City Junior	3	0	0	2	0	1	0	0
Missouri State Coll. for Women	1	0	0	0	0	1	0	0
Monticello	2	0	0	1	0	1	0	0
Morningside	15	0	2	7	0	4	2	0
Mt. St. Joseph	7	0	0	5	0	2	0	0
National Kindergarten and Elem. Coll.	1	0	1	0	0	0	0	0
National Park Sem.	2	0	0	2	0	0	0	0
New England Conservatory of Music	1	0	0	1	0	0	0	0
Northwestern U.	8	1	3	1	0	2	1	0
Nurses' Training Sch., Mercy Hospital	1	0	0	0	0	0	1	0
Oberlin	1	0	0	0	0	0	0	1
Oklahoma College for Women	1	0	0	1	0	0	0	0
Parsons	10	2	0	3	0	3	2	0
Peabody	1	0	1	0	0	0	0	0
Penn	1	0	0	1	0	0	0	0
Pratt	1	0	0	1	0	0	0	0
Randolph Macon	1	0	0	1	0	0	0	0
Rockford	5	0	2	1	0	2	0	0
Rosary	1	0	0	1	0	0	0	0
St. Benedict (Minn.)	1	0	0	0	0	1	0	0
St. Mary's (Notre Dame)	1	1	0	0	0	0	0	0

5. Composite of (1), (2), (3), and (4) concluded

Name of Institution	No.	Number of Years Attendance						
		X	½	1	1½	2	3	4
St. Olaf	1	0	0	0	0	1	0	0
San Alfonso	1	0	0	1	0	0	0	0
Sargent School of Physical Education	1	0	0	1	0	0	0	0
Simpson	6	0	0	1	0	4	0	1
Sioux City Normal Sch.	1	0	0	0	0	0	1	0
South Dakota State	1	1	0	0	0	0	0	0
Southern Sem. (Va.)	1	0	0	1	0	0	0	0
State Man. Trg. Normal Sch. (Kansas)	1	0	0	0	1	0	0	0
Tillotson	1	0	0	0	0	0	0	1
Trinity (Sioux City)	3	0	2	1	0	0	0	0
Trinity (Washington, D. C.)	1	0	0	1	0	0	0	0
U.S.A. Service	4	1	3	0	0	0	0	0
U.S. Military Academy	1	0	0	0	1	0	0	0
U.S. Naval Academy	1	1	0	0	0	0	0	0
U. of Akron	1	0	0	1	0	0	0	0
U. of Calcutta	1	1	0	0	0	0	0	0
U. of California	2	2	0	0	0	0	0	0
U. of Chicago	11	3	3	3	1	1	0	0
U. of Colorado	2	2	0	0	0	0	0	0
U. of Denver	1	0	0	1	0	0	0	0
U. of Illinois	5	2	2	1	0	0	0	0
U. of Kansas	3	0	2	1	0	0	0	0
U. of Michigan	5	1	2	1	1	0	0	0
U. of Minnesota	7	3	0	3	0	1	0	0
U. of Missouri	2	0	0	0	0	0	0	2
U. of Montana	1	0	0	0	0	0	1	0
U. of Nebraska	3	0	1	1	0	1	0	0
U. of Oklahoma	1	0	0	0	0	1	0	0
U. of Oregon	1	0	0	1	0	0	0	0
U. of South Dakota	3	0	0	1	0	2	0	0
U. of Southern California	3	0	1	1	0	1	0	0
U. of Texas	1	0	0	0	1	0	0	0
U. of Utah	2	0	0	1	1	0	0	0
U. of Valparaiso	1	0	0	0	1	0	0	0
U. of Vermont	1	1	0	0	0	0	0	0
U. of Washington	2	1	0	1	0	0	0	0
U. of Wisconsin	7	2	1	2	0	1	1	0
Upper Iowa U.	8	1	2	2	0	2	1	0
Valder College	1	1	0	0	0	0	0	0
Ward-Belmont	3	0	0	2	0	1	0	0
Wartburg	2	0	0	1	0	1	0	0
Washburn	1	0	0	0	0	0	1	0
Waterloo Business	1	1	0	0	0	0	0	0
Wellesley	1	0	0	1	0	0	0	0
West Texas St. Normal	1	0	0	0	0	1	0	0
Western Illinois State Teachers	1	1	0	0	0	0	0	0
Western Normal	1	0	0	0	0	1	0	0
Western Union	1	0	0	0	0	0	1	0
Wiley	1	0	0	0	0	0	0	1
Yankton	1	0	0	0	0	1	0	0

6. Colleges in (5) Having Five or More Students

		Number of Years Attendance						
Name of Institution	No.	X	½	1	1½	2	3	4
Iowa State Teachers College	38	10	6	9	1	7	2	3
Grinnell	36	0	2	10	1	18	4	1
Iowa State College	28	8	6	6	2	5	0	1
Coe	19	6	1	7	0	3	2	0
Cornell	18	2	1	5	0	8	2	0
Drake U.	16	0	2	6	2	3	3	0
Morningside	15	0	2	7	0	4	2	0
U. of Chicago	11	3	3	3	1	1	0	0
Parsons	10	2	0	3	0	3	2	0
Iowa Wesleyan	8	2	1	3	0	2	0	0
Northwestern U.	8	1	3	1	0	2	1	0
Upper Iowa U.	8	1	2	2	0	2	1	0
Des Moines U.	7	2	2	2	0	0	1	0
Mt. St. Joseph	7	0	0	5	0	2	0	0
U. of Minnesota	7	3	0	3	0	1	0	0
U. of Wisconsin	7	2	1	2	0	1	1	0
Augustana	6	1	1	1	0	1	2	0
Simpson	6	0	0	1	0	4	0	1
Graceland	5	0	0	0	0	4	1	0
Rockford	5	0	2	1	0	2	0	0
U. of Illinois	5	2	2	1	0	0	0	0
U. of Michigan	5	1	2	1	1	0	0	0

TABLE 16

SUMMARY OF GRADUATES[1] OF 1924 WHO ATTENDED COLLEGES OTHER THAN THE STATE UNIVERSITY OF IOWA AND THE TOTAL NUMBER OF DIFFERENT INSTITUTIONS ATTENDED

	Number of Other Colleges Attended					
	One	Two	Three	Four	Five	Total
B.A. Men	30	14	1	0	0	45
B.A. Women	107	32	12	2	0	153
Other than B.A. Men	82	17	5	0	0	104
Other than B.A. Women	12	4	2	0	1	19
Total:	231	67	20	2	1	321

Total Number of Different Institutions Attended: 134

TABLE 17

STATE OF HIGH SCHOOL: FRESHMAN GROUP OF 1920

	Liberal Arts		Applied Science
State	Men	Women	Men
Iowa	491	417	136
Illinois	14	4	4
Foreigners	7	1	0
Missouri	5	1	2
South Dakota	5	4	0
California	3	0	1
Minnesota	3	2	2
Louisiana	2	0	0
Nebraska	2	1	0
Colorado	1	2	0

(Continued on page 56)

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[1] All graduates except those receiving the following degrees: M.A., M.S., Ph.D., and J.D.

TABLE 17 Continued

STATE OF HIGH SCHOOL: FRESHMAN GROUP OF 1920

	Liberal Arts		Applied Science
State	Men	Women	Men
Indiana	1	1	0
Kansas	0	0	1
Michigan	0	1	0
Montana	0	1	0
New Hampshire	0	1	0
New Jersey	1	1	0
New York	0	1	0
Oregon	0	1	0
Texas	1	0	0
Washington	1	0	1
West Virginia	0	0	1
Wisconsin	0	1	0
Wyoming	0	1	0

	Men	Percentage	Women	Percentage	Men	Percentage
Iowa	491	91.4	417	94.6	136	91.9
Others	56	8.6	24	5.4	12	8.1

Out of a total of 1119 high school graduates 1044, or 93.3%, were from Iowa, and 51, or 6.7%, from other states and foreign countries.

TABLE 18

YEARS OF HIGH SCHOOL GRADUATION OF FRESHMAN GROUP OF 1920

	Liberal Arts				Ap. Science	
Year	Men	Percentage	Women	Percentage	Men	Percentage
1920	324	65.5	269	65.8	82	57.7
1919	91	18.4	62	15.2	30	21.1
1918	30	6.1	32	7.8	12	8.5
1917	24	4.8	16	3.9	10	7.0
1916	9	1.8	9	2.2	3	2.1
1915	6	1.2	7	1.7	3	2.1
1914	8	1.6	4	1.0	2	1.4
1913	1	0.2	1	0.2		
1912	1	0.2	1	0.2		
1911	1	0.2	2	0.5		
1910			2	0.5		
1909			2	0.5		
1905			1	0.2		
1904			1	0.2		

TABLE 19

YEARS OF GRADUATION FROM THE STATE UNIVERSITY OF IOWA: FRESHMAN GROUP OF 1920

	Liberal Arts				Ap. Science	
Year	Men	Percentage	Women	Percentage	Men	Percentage
1923	6	4.8	5	4.1	0	0.0
1924	110	88.7	114	92.7	37	94.9
1925	8	6.5	4	3,3	2	5.1

TABLE 20

YEARS BETWEEN HIGH SCHOOL GRADUATION AND COLLEGE ENTRANCE OF FRESHMAN GROUP OF 1920

Years Between	Liberal Arts				Ap. Science	
	Men	Percentage	Women	Percentage	Men	Percentage
0	324	65.5	269	65.8	82	58.2
1	91	18.4	62	15.2	29	20.6
2	30	6.1	32	7.8	11	7.8
3	24	4.8	16	3.9	10	7.1
4	9	1.8	9	2.2	3	2.1
5	6	1.2	7	1.7	3	2.1
6	8	1.6	4	1.0	2	1.4
7	1	0.2	1	0.2	0	0.0
8	1	0.2	1	0.2	0	0.0
9	1	0.2	7	1.7	1	0.7
9+	0	0.0	1	0.2	0	0.0
	495		409		141	

TABLE 21

YEARS BETWEEN HIGH SCHOOL AND COLLEGE GRADUATIONS: FRESHMAN GROUP OF 1920

Years Between	Liberal Arts				Ap. Science	
	Men	Percentage	Women	Percentage	Men	Percentage
3	2	1.8	1	0.8	0	0.0
4	78	69.0	97	82.2	24	61.5
5	24	21.2	8	6.8	7	17.9
6	5	4.4	2	1.7	3	7.7
7	1	0.9	4	3.4	2	5.1
8	0	0.0	3	2.5	0	0.0
9	0	0.0	0	0.0	3	7.7
9+	3	2.7	3	2.5	0	0.0
	113		118		39	

TABLE 22

INTELLIGENCE AND GRADE-POINT SCORES FOR L. A. STUDENTS WHO WERE GRADUATED IN THREE CALENDAR YEARS

Men

Int.	1st.	2d.	3d.	Comp.
96	2.3	2.1	2.5	2.3
81	2.4	1.8	1.8	2.0
80	3.7	3.6	3.5	3.6
80	2.8	1.7	2.8	2.4
76	2.2	2.2	2.5	2.3
70	0.7	2.2	Sci.	1.5
68	2.1	2.4	2.7	2.4
58	2.4	2.0	2.2	2.2
53	2.3	1.9	2.5	2.2
53	2.1	2.2	2.6	2.3
47	1.0	0.5	1.7	1.1
43	1.8	1.2	2.2	1.7
31	2.2	2.4	2.1	2.2
M 64.3	2.15	2.02	2.43	2.17

Women

Int.	1st.	2d.	3d.	Comp.
89	3.4	3.2	3.1	3.2
80	1.9	2.3	2.7	2.3
71	2.8	2.9	3.2	3.0
69	2.4	2.7	2.9	2.7
67	2.9	2.0	2.9	2.6
65	2.6	3.3	3.1	2.8
63	2.6	2.2	3.4	2.6
62	2.0	1.7	2.0	2.2
59	2.0	2.1	2.4	2.2
57	2.1	1.9	2.3	2.1
M 68.2	2.47	2.43	2.81	2.57

TABLE 23

INTELLIGENCE SCORES OF THOSE IN FRESHMAN GROUP OF 1920 STILL IN SCHOOL AT S.U.I. IN 1924-25

Lib. Arts		A.S.	Com.	Dent.	Law		Med.	Nurs.
Men	Women	Men	Men	Men	Men	Women	Men	Women
90	83	49	90	45	84	81	91	72
67	81		72	41	72		90	62
59	77		64		65		84	
54	74		62		64		83	
49	73		36		50		81	
43	66				44		79	
41	64				43		73	
	63						73	
	54						68	
	45						66	
	44						63	
	43						62	
	43						62	
	37						60	
							58	
							54	
							51	
							47	
							45	
							42	
							29	

Means: Liberal Arts, Men 57.6, Women 60.5; Commerce, Men 64.8; Dentistry, Men 43.0; Law, Men 60.3; Medicine, Men 64.8; Nursing, Women 67.0.

In addition to the above students there are 1 man and 6 women in Liberal Arts, 1 woman in Commerce, 1 man in Dentistry, 3 men in Law, and 1 man in Medicine whose Intelligence Scores are missing.

TABLE 24

INTELLIGENCE SCORES ACCORDING TO REASONS FOR DROPPING OUT

1. Men

(x)	(1)		(2)	(3)	(5)	(7)	(8)	(9)
77	99	55	74	61	92	58	65	59
76	88	55		60	59			57
72	87	55		46	47			48
68	83	53		38				47
66	82	53						47
63	81	52						
62	79	51						
62	74	51						
61	73	50						
60	73	50						
56	71	49						
55	71	49						
54	70	49						
53	69	48						
47	69	46						
44	68	44						
36	67	42						
27	66	40						
	66	39						
	65	38						
	64	26						
	62							
	62							
	62							
	59							
	59							
	58							
	57							
	57							
	56							

Means: (x), 57.7; (1), 60.6; (3), 51.3; (5), 66.0; (9), 51.6.

(x) No reason
(1) Financial
(2) Matrimony
(3) Ill health
(4) To teach school
(5) Business
(6) Specialization
(7) Illness in family
(8) Preference for different school
(9) Other

In addition to the above there are 5 men in group (x), 10, in group (1), 1, in group (3), 1, in group (5), 1, in group (7), and 3, in group (9) whose Intelligence Scores are not available.

2. Women

(x)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
77	90	85	62	85	60	64	50	85	65
76	81	85	52	69	55	56	45	78	49
68	79	80	52	65	32	48			
61	79	78	48	59		44			
57	72	72	46	57					
56	70	71	45	34					
55	66	67							
52	66	64							
50	64	63							
50	63	61							
45	62	49							
44	62	49							
44	61	48							
42	61	44							
	59	33							
	57								
	57								
	56								
	54								
	52								
	49								
	47								
	46								
	45								
	44								
	40								

Means: (x), 55.5; (1), 60.8; (2), 63.3; (3), 50.8; (4), 61.5; (5), 49.0; (6), 53.0; (7), 47.5; (8), 81.5; (9), 57.0.

(x) No reason
(1) Financial
(2) Matrimony
(3) Ill health
(4) To teach school
(5) Business
(6) Specialization
(7) Illness in family
(8) Preference for different school
(9) Other

In addition to the above there are 4 women in group (x), 5, in group (1), 1, in group (2), 2, in group (3), and 2, in group (9) whose Intelligence Scores are not available.

TABLE 25

INTELLIGENCE SCORES AND INTENTION OF RESUMING COLLEGE WORK OF THOSE WHO DROPPED OUT OF FRESHMAN GROUP OF 1920

(0)		(1)		(2)		(3)	
Men	Women	Men	Women	Men	Women	Men	Women
92	85	82	90	99	79	87	81
73	85	74	85	88	68	83	79
72	80	74	72	71	66	81	72
71	78	69	66	66	52	79	71
70	77	59	62	65	44	69	69
68	70	57	61	54	44	66	65
68	67	57	61	53	44	65	57
67	65	55	59	52		62	56
64	64	53	55	47		61	56
63	64	52	50	42		59	52
62	64	51	49			58	52
62	63	50	48			58	49
59	61	49	48			55	47
57	61	48	45			49	46
56	60	47	40				46
56	57	46					45
55	57	44					45
51	55	44					45
50	52	39					34
49	50	38					32
48	49						
46	49						
36	48						
27	44						
	44						
	33						

Means: (0), men 59.3, women 60.8; (1), men 54.4, women 59.4; (2), men 63.7, women 56.7; (3), men 66.6, women 55.0.

(0) Those who do not intend to resume college work.
(1) Those who intend to return to S.U.I.
(2) Those who intend to resume their college work elsewhere.
(3) Those who are undecided as to where they will resume their college work.

In addition to the above there are 5 men and 3 women in group (0), 6 men and 3 women in group (1), 1 man and 3 women in group (2), and 5 men and 4 women in group (3) whose Intelligence Scores are not available; and 8 Applied Science men in group (0), 4, in group (1), 2, in group (2), and 5, in group (3).

AVAILABILITY OF ORIGINAL DATA

All the original data gathered in connection with this study have been indexed and filed in the Office of the Registrar. Because of the great amount of original data required it was thought best to omit from this dissertation all basic data and tabulations except when their inclusion seemed essential to a clear interpretation of the discussion and conclusions. The official records of these students constitute the basis for this study. From these records complete and detailed tabulations were made in convenient form for taking off the information about each student included in this study. These tabulations are available for reference or for further study on the same basis as the official records in the Office of the Registrar.

In addition to recording all the available information on the freshman group in one large columnar tabulation book, these data were punched on cards for the Hollerith sorting machine. The following information is punched on the cards:

1. Sex
2. College in which enrolled
3. Name, alphabetized within first four letters
4. Age
5. Composite intelligence score on entrance test
6. Percentile rank on entrance test based on entire 1920 group (not used in this study)
7. State in which high school is located
8. Year of high school graduation
9. Number years attendance at other institutions before entering the University of Iowa
10. Number years between high school graduation and college entrance
11. Date of graduation from college
12. Number years between high school and college graduation
13. Major subject
14. Grade-point rank by years for freshman, sophomore, junior, and senior years, with a composite grade-point average for those who were graduated
15. Number years attendance at the University of Iowa
16. Number years attendance at other institutions after attending the University of Iowa
17. Correspondence, extension, and residence work
18. Reasons for discontinuing college work
19. Intention to resume college work at a later date at the University of Iowa or elsewhere
20. Year in which college work is to be resumed
21. Present occupation

The above data except (5) and (6) apply also to the Applied Science group.

All letters received from those students who left the University before graduation are on file.

In connection with this study the increments of students entering the Liberal Arts freshman, sophomore, junior, and senior years were found. These groups are treated only incidentally in this study, but the complete data for these students are on file.

The data from the Iowa High School Mental-Educational Survey are also on file. The scores on the Iowa High School Content Examination (Ruch), Iowa Comprehension Test (Seashore), and Thorndike Intelligence Test for High School Graduates are recorded separately. These data are filed alphabetically by high schools. The cards for the boys and girls are of different colors and are filed separately. There are approximately 3350 cards for the two years 1923 and 1924, which were made available for this study through the courtesy of Dean C. E. Seashore and Professor G. M. Ruch. Through their coöperation, the writer gathered college attendance data on these same students for the past two years. These data are recorded on separate cards from those containing the scores made in the high school surveys, but are filed in the same manner.

List of original data on file:

1. Tabulations
    - a. Liberal Arts Freshman Class of 1920
    - b. Applied Science Freshman Class of 1920
    - c. Those receiving degrees in 1924
    - d. Increments of students entering the College of Liberal Arts as sophomores, juniors, and seniors during these years
2. Hollerith cards on Freshmen of 1920, with key
3. Iowa High School Mental-Educational Survey cards
4. College attendance cards supplementing information gathered in Iowa High School Mental-Educational Survey
5. Letters from those who left this university before graduation

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